Sheffield Hallam University

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PUTTING ON A SHOW: EDUCATOR EXPERIENCES OF FACILITATING INTERPROFESSIONAL SIMULATION

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A project report submitted in partial fulfilment of the requirements of Sheffield Hallam

University for the degree of Doctorate in Professional Studies

July 2019

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I am aware of and understand the University's policy on plagiarism and certify that this thesis is my own work. The use of all published or other sources of material consulted have been properly and fully acknowledged.

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The word count of the thesis is 47,956/60,492.

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Award	Doctor of Professional Studies
Date of Submission	July 2019
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ABSTRACT

This doctoral report presents a grounded theory *Putting on a Show*, illuminating how educators describe their practice of providing healthcare simulation for more than one professional group.

Interprofessional simulation, describes occasions when more than one professional group through simulation-based approaches, learn with, from and about each other to improve patient outcomes. Simulation based approaches, originating in the aviation industry are now regularly applied in healthcare education (Hellaby, 2013). Simulation is frequently used to explore team dynamics, processes and outcomes and is described as a method that can support interprofessional learning outcomes (Gough, Hellaby, Jones & MacKinnon, 2012; Zhang, Thompson & Miller, 2011).

In this study a constructionist grounded theory approach was used to explore the experience of educators when providing this type of simulation. Data collection for this research took place in England over a one-year period with seven participants. Grounded theory is used to generate a theoretical understanding of previously un-explained basic social processes, to ask 'why' questions (Charmaz, 2014). Grounded theory explores participant constructions of experience and is a method of construction throughout the inquiry process, using open, focussed coding and constant comparative methods alongside memos, reflective journals and diagrams (Charmaz,

2008). The conceptual theory generated in this study describes the utility of theatrical practices in simulation including a dramaturg role that resonates with the role of an interprofessional simulation educator. Educators, when adopting this role, can challenge taken for granted practice using an interprofessional gaze to reshape their default views of team approaches to clinical practice to facilitate the interprofessional potential of team-based simulation. The study contributes to describing features of simulation educator development and proposes ways to harness sociological authenticity when providing team-based simulation to more than one professional group.

ACKNOWLEDGEMENTS

This has been a long journey of academic and personal development, with many twists and turns. Importantly, this process has taught me how to work with dyslexia and consequently demanded a redefinition of my capabilities. I have grown as a researcher and when reading through the work, I believe I can finally write!

Many thanks go out to…

Prof Frances Gordon, you helped me to remain buoyant throughout the choppy seas of study! Your supervision generously given with elegant expertise, provided all the space, pace and push I needed.

Dr Jo Lidster, who can cut to the chase and provide clarity in the fog, thanks for your invaluable insights.

To the many colleagues who have been happy to sit and listen to me! The critical friends along the way, Dr Fiona Wilson, Jackie Parkin, Nick White and numerous others completing their studies whilst I've been studying too.

My friends and family for their encouragement and especially to my partner Matt who has learned new heights of patience and my daughters Edie and Alice who have grown up with Mum studying, now, let's go and have some fun!

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1 INTRODUCTION TO THE STUDY

This doctoral report contributes to the final component of a Professional Doctorate award. The report presents a grounded theory *Putting on a Show*, illuminating how educators describe their practice of providing healthcare simulation for more than one professional group, often referred to as interprofessional simulation.

Educational approaches such as interprofessional education and simulation based education, aim to improve the knowledge, skills, attitudes and behaviours of healthcare staff, to achieve the quadruple aims of healthcare namely: improving the patient experience, supporting population health and managing costs alongside the satisfaction of health care providers (Reeves et al., 2016; Bodenheimer & Sinsky, 2014). A key factor in achieving these goals is how different professional groups are brought together to learn with, from and about each other (Barr & Gray, 2013; Hellaby 2013). This can be achieved in are variety of settings including: classroom, online and in clinical workplace settings and can be offered during initial pre-registration preparation or post qualification education (Barr & Gray 2013).

This study explores interprofessional simulation as an initiative. This type of learning is concerned with how team rehearsal of clinical events is provided so that subsequent care and service delivery can be enhanced (Reeves et al., 2013; Paradis & Reeves,

2013). Both interprofessional education and simulation have emerged from a need to improve team work and collaborative practice. Interprofessional education in a UK context was brought into undergraduate curricula in response to failures in care, seen as a way to address concerns about professional silos, ineffective communication and the impact of professional hierarchies on raising concerns about standards of service (Barr & Grey 2013).

Simulation based approaches have their origins in the aviation and aeronautics services where training in safer flights and rehearsal for cockpit emergencies, developed a greater understanding of how humans perform in a high stress/intensity situations with significant potential impact of the safety of others (Hellaby 2013). Approaches developed in the aviation industries to support safer flights have been applied in other settings and now commonly feature in healthcare education (Motola, Devine, Chung, Sullivan & Issenberg, 2013). Authors note however, unlike the aviation industry, healthcare is a more complex and nuanced system (Gaba 2007), so how simulation-based approaches are translated into healthcare has received much attention to develop evidenced-based approaches that maximise the potential impact on the quality of care. Both simulation and interprofessional education aim to bring teams together, almost always requiring expert facilitation of learning from an experienced educator, occurring in a carefully considered learning environment with rich learning materials, which is costly and resource intensive to support (Motola et al 2013).

The impact of educational experiences on service outcomes has gained increasing significance to commissioners of education (Reeves et al., 2018), particularly as both interprofessional and simulation-based approaches are so costly and resource-intensive to deliver (Health Education England, 2013). It is important and worthwhile therefore to understand the perspectives of those engaged in delivering interprofessional simulation and the processes they are engaged with: a central purpose of this study.

1.1   STUDY SCOPE

The purpose of this study was to explore the experiences of educators from higher education and hospital-based simulation settings when providing interprofessional simulation. Participants were recruited from a regional simulation network in a UK context who described themselves as providing learning opportunities for more than one professional group through team-orientated healthcare simulation. From a relatively small pool of people, seven participants who had experience of the phenomenon of interest were involved in the study. The qualitative interviews nevertheless yielded a large amount of rich data from which it was possible to generate a grounded theory concerning the substantive interest of the project.

Both simulation and interprofessional education are seen to provide active, experiential and reflective ways of learning where facilitated interaction between different professional groups is required (Failla & Macauley, 2014).

1.2 AIMS OF THE PROJECT AND RESEARCH QUESTIONS

The reach of this study was to understand educator practices when providing post-registration team-based simulation to more than one professional group. Team-orientated simulated learning frequently involves representation from different professional groups and the achievement of learning goals requires educator-facilitated reflective learning with, from and about others. How educators describe this practice is explored in this study in relation to how interprofessional learning is described in the literature. This study is interested in where educators providing such simulation opportunities see this as being inherently interprofessional, as defined by the Centre for the Advancement of Interprofessional Education (CAIPE 2006). The specific scope of what constitutes interprofessional in relation to simulation and more specifically what constitutes educator practices when providing interprofessional simulation are explored in subsequent chapters.

A constructionist grounded theory approach was utilised to describe previously un-seen social processes with the aim of providing an explanatory model, grounded in participant experience (Starks & Brown Trinidad, 2007) that would contribute to new knowledge in this field.

The aims of this study were as follows:

• To generate theoretical understanding of educator practices when providing team-based simulation for more than one professional group.

• To contribute to knowledge that has application to practice and theory development of interprofessional education, simulation and where these two approaches intersect.

The research question for this study was:

What are the processes that simulation educators engage with in their practice, when providing team-based simulation to more than one professional group?

1.3   CONTRIBUTION TO EXISTING KNOWLEDGE

This work provides a significant contribution to knowledge by explaining the role of educators when facilitating interprofessional simulation-based healthcare education. Several contributions are made, namely:

- A substantive theory that explains educator features of facilitating interprofessional simulation.

- The application of dramatic and theatre-related approaches to inform how simulation educators practice when providing team-based simulation.

- A description of a simulation dramaturg, a role that illuminates educational processes involved in interprofessional simulation.

- The concept of default views, that highlight how socio-cultural and professional orientation of educators impacts on learner experience in team-based simulation, including the impact of faculty playing out roles.

- A consideration that team simulation that involves more than one professional group is inherently interprofessional and should therefore be described and designed as such.

- A contribution to understanding how sociological fidelity as described in the literature, can be harnessed through educator practices.

1.4   THESIS STRUCTURE

Chapter 1 provided here is an introduction to this work and outlines the scope and intent of the study. Chapter 2 sets the context for the study, drawing on literature concerning simulation-based healthcare education and interprofessional education and where these two fields intersect. This helps to highlight the specific gaps in the literature. In keeping with grounded theory approaches, literature relevant to contextualising the study is presented here, but is further expanded in subsequent chapters to illuminate findings and enable their critical discussion. Chapter 3 introduces the epistemological and ontological perspectives, describing the methodological approach of constructionist grounded theory, addressing the research methods employed in the study and ethical considerations, which are essential to support the trustworthiness and rigour of the study. Chapter 4 provides a brief introduction to the conceptual framework of this study expressed through the use of metaphor. Chapter 5 further orientates the reader to the use of metaphor and analogy used in the study, with regard to how these tropes emerged from the study findings and introduces how metaphors work to communicate complex ideas, followed by 4 chapters that describe the findings of the study (Chapters 6-9). Chapter 10 presents a discussion to support the conceptual framework of *Putting on a Show* with a synthesis of relevant theory. Chapter 11 presents the conclusions and

recommendations for future practice and research informed by this study alongside a

critical reflection of the study overall.

2 SETTING THE CONTEXT FOR THE STUDY: LITERATURE REVIEW

This chapter sets out the context for the study using a narrative review to situate the study in relevant literature. The employment and use of literature in grounded theory approaches is both an epistemological and methodological issue (Ramalho, Adams, Huggard & Hoare, 2015) and in constructionist/constructivist grounded theory, literature continues to feature *alongside* the analytical processes to place the 'work within the body of related literature' (Bryant & Charmaz, 2007, p. 123). Hence the purpose of the review in this context is to provide an anchor for the work and to orientate the reader, contextualising the starting point for this study (Charmaz & Keller, 2016). Charmaz's position is that use of extant literature should be delayed, to help articulate ideas as they emerge, rather than imposing them, suggesting that, 'concepts need to earn their way into the researcher's narrative' (Charmaz, 2006, p. 126), so that actions and processes are analysed rather than themes and structures (Charmaz, 2014). As the researcher, as an academic, works with both interprofessional and simulation education as part of their role, an initial search also helped to judge if the study existed elsewhere, highlighted gaps and contextualised the study within the area of concern. To balance these two demands, a narrative review was selected as a necessary part of

the research proposal process (Green, Johnson & Adams, 2006), used to build an understanding of existing work, and to consolidate and surmise what is known and help shape areas for future study (Grant & Booth, 2009).

In narrative reviews the 'methods section ' of the review is not a necessary feature however the search strategy is an important step (Ferrari, 2015 p231; Grant & Booth, 2009). In this review, the online databases searched included MEDLINE, CINAHL, Cochrane, PsychINFO and ERIC, Google Scholar, using the terms and their synonyms detailed in Table 1. Boolean and proximity operators were used to gain maximum inclusion. Medical subject (MeSH) headings and keywords were selected and advice from an information specialist was used to structure the initial search strategy. Inclusion criteria addressed date of publication (2005 until 2014 inclusive). Papers relating to simulation and interprofessional education and theory for postgraduate study were searches and sources were limited to the English language (Figure 1).

Table 1 Search Terms

Subject Area	Search Terms
1.Simulation	Patient Simulation OR Simulations OR Simulation in Healthcare
2.Interprofessional Education	Interdisciplinary OR cooperative behaviour OR IPE or Interprofessional Relation* OR Interdisciplinary communication OR Interprofessional OR Team N1 Training OR Transdiciplinary OR Interprofessional Theory

| Interprofessional Simulation | Combinations of Groups 1 & 2 above |

In combination with the database search, journals were hand-searched; reference lists explored using snowballing techniques to trace the development of a body of literature along with citation tracking (Booth, Papaioannou & Sutton, 2011; Greenhalgh et al., 2004). Designs included in the narrative review were peer reviewed qualitative, quantitative and mixed method studies, systematic and literature reviews, alongside thematic, position or discussion papers, and published reports and books.

Crafting a narrative review is viewed as a dynamic process (Ferrari 2015), articles were reviewed to consider key results, limitations, suitability of the methods and approaches used, quality and interpretation of the results obtained and related impacts, or conclusions. The literature has been presented to introduce the broad aims of both interprofessional simulation based education, and where the educational approaches undertaken during interprofessional simulation are described in the literature. It is important to note in aligning with the epistemological approach of this study, the researcher also applies the findings of this initial search throughout the project report, consequently not all literature is foregrounded in this initial chapter, but is instead employed in later chapters, contributing to the development of the conceptual theory.

In keeping with grounded theory approaches where literature is used to 'frame, integrate and assess the literature' (Charmaz 2006, p.168) participants' accounts revealed the significance of theatrical metaphors when describing their work (explored in subsequent chapters). Consequently literature concerning the performance arts was approached as the study progressed. Instead of using Boolean and proximity operators to gain maximum inclusion, the participants' own words were used to generate search terms. The decision to take this approach was to assure that the work was grounded in the participants' voice and that later abstractions, when situating the framework in wider theory, could be traced back to *their voice* in the construction of the conceptual framework (Charmaz 2014).

It is acknowledged that there is a breadth of literature relating to interprofessional education and simulation-based approaches and the following review just scratches the surface. However, as this study seeks to explore the processes that educators are engaged with when providing interprofessional simulation in post-qualification settings, the initial search focussed on the reported educational approaches for simulation, interprofessional education and where these intersect for post-registration learners.

2.1   SIMULATION

Simulation as a learning and teaching strategy has a broad educational definition, has many modalities and is used across a range of undergraduate and continuing

education for both professional education and personnel evaluation (Issenberg et al., 2005; Gaba, 2004) and can be defined as:

'a technique, not a technology, to replace or amplify real experiences with guided experiences, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion'

(Gaba, 2004, p.2).

Perceptions of what constitutes simulation however are divergent (Alinier, 2007) as the term can be used inappropriately. To address this, typologies of simulation have been developed to help educators describe their practice for practitioner and academic communities (Meller, 1997; Alinier, 2007). Typologies help to describe a range of activities varying from case-based written simulations, 3-D models, e-enabled virtual environments, part task trainers (such as a limb to practise venepuncture with), intermediate or full body, programmable human patient simulators, to the use of actors as a standardised patient (Alinier, 2007).

Anatomical models and mock ward settings have been commonplace in higher education settings for some time (Palaganas, Epps & Raemer, 2014). However, more recently, as equipment has become more readily available and cheaper to buy, the development of new technologies and advancements from the aviation industry have informed team-based simulation, contributing to providing simulation in the workplace.

As failures in teamwork are frequently cited as contributing to significant healthcare errors (Shapiro et al., 2008), team-orientated simulations are considered useful to address core teamwork skills such as communication and feature in professional curricula and continuing professional development programmes (Association for Simulated Practice in Healthcare, ASPiH, 2016).

Simulation scenarios are often created to replicate critical clinical events that allow learners, often performing in teams, to engage with the situation in a safe non-threatening environment. When creating a realistic scenario, the fidelity of the simulation environment is seen as significant (Kneebone, 2010). Fidelity can be described as the attempt to accurately reproduce any given situation and can be a measure of the realism within the simulation itself (Hays & Singer, 1989). The pursuit of fidelity can therefore affect the design of the learning environment, the content and the progression of any given scenario used within the simulation for an individual or a team. This idea is based on Thorndike's learning theory that learning in one context can be transferred to similar context (Baldwin & Ford, 1988). High fidelity simulations are a popular often high-cost option, but spending is justified because of the significant learning gains achieved (Kozlowski & DeShon, 2004), whereas low-cost high impact simulated learning has also been shown to improve technical skills acquisition (Cook et al., 2011). Essential to the simulation experience is the notion of creating enough fidelity to reproduce both physical and psychological features so any clinical activity is accurately reproduced in the simulation (Maran & Glavin, 2003). Efforts to address

fidelity can be dependent on topic, task or learning outcome (Norman, Dore &

Grierson, 2012), based on theories of situated cognition (Brown, Collins & Duguid,

1989). Situated cognition considers how much authenticity is enough and this is

related to the capacity to replicate real life, so that the learner is sufficiently immersed

in the learning activity (Brown et al., 1989).

Simulation can be provided in a work-place setting known as *in situ*, in clinical skills

centres often within the hospital or at regional/national simulation centres (Rosen,

Hunt, Pronovost, Federowicz & Weaver, 2012) clinical skills suites or specifically

designed high-fidelity, often regional, simulation centres (Hellaby, 2013). The

combination of medium or high-fidelity programmable human-patient simulators used

within a simulation scenario is often combined with the use of video feedback to

support a facilitated de-brief after a simulation learning event (Hellaby, 2013). This

approach is used within the aviation industry to consider crew resource management

training, which addresses learning around communication, feedback, learning from

teamwork behaviours, and sharing of mental models (Salas et al., 2008). The need to

have safer flights and thus rehearse for sentinel events in the aviation industry

resonates with a parallel desire to address patient safety issues in critical situations.

Human factors, having also evolved from the fields of aviation, aeronautics and

ergonomics, encompass a set of non-technical skills that describe the influence that

both individual performance and environments have on an event (Hellaby, 2013).

Human factors consider the cognitive, social and personal attributes that can affect

performance (NHS England, 2013). There are twelve, commonly identified features of human factors learning in relation to simulation, these include: lack of communication; impact of distraction; complacency leading to a loss of awareness of potential danger; lack of knowledge in a situation; lack of effective teamwork; tiredness; lack of resources; impact of pressures; lack of assertiveness; stress; lack of awareness; norms or unwritten rules that might prove unhelpful within a culture (NHS England, 2016). Team simulation that includes human factors learning provides opportunities to discuss teamwork functions and hierarchy gradients, which includes professional standing, expertise, educational level and social status within the organisation. A failure to acknowledge these factors can lead to human error if team leaders ignore the concerns of team members (Walshe & Boaden, 2005). Human factors or non-technical skills are often addressed during a facilitated debrief that follows a team simulation scenario.

Simulation facilitates exist in many NHS Hospital Trust premises to support local and frequent exposure to this mode of learning (ASPiH, 2016). The direct transfer of human factors approaches to healthcare environments, such as crew resource management, is seen to have its challenges as healthcare is not a closed controlled system that is mainly process driven, but one where a high variability of factors continually occur (Dean, Travis Maynard & Marshall, 2012).

Simulations are typically described as having three pedagogical components, a prebrief, the simulation and a debrief (Jeffries, Rodgers & Adamson, 2015). A plan for the

simulation, commonly referred to as a script, is designed to address learning outcomes, resources and a timeline or progression of the simulation (Hellaby, 2013). Simulation is balanced across these three stages where the time allocated to the simulation and subsequent debrief should typically be of equal weighting, as the debrief is where significant learning is viewed as taking place (Jeffries, Rodgers & Adamson, 2015).

Simulation based approaches provide opportunities for team-based learning with an emphasis to break down professional silos (Motola et al 2013). Interprofessional education initiatives strive to bring together different professional groups and literature from this field helps to articulate the contexts, educational processes and concerns that shape effective collaborative learning opportunities.

2.2 INTERPROFESSIONAL EDUCATION

Interprofessional education is often described as:

'occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care'

(Centre for the Advancement of Interprofessional Education CAIPE, 2006).

The development of interprofessional approaches in UK undergraduate education arose from responses by government to address the perceived lack of skills by health and social care professionals to work collaboratively, set against the backdrop of serious case reviews and inquiries across health and social care (Inquiry, B. R. I. & Kennedy, 2001; Lord, 2003). The NHS strategy document 'Long Term Plan' continues

to advocate for collaborative learning experiences to address the changes required to meet population need (NHS England, 2019). Research activity accompanying this practice requirement aims to demonstrate the impact of interprofessional initiatives on workforce development (Reeves et al., 2016). Developing an evidence base to support interprofessional learning approaches in pre- and post-registration education therefore continues to be a requirement (Reeves et al., 2016), careful planning, curriculum design, student selection and use of learning methods to create contextualised learning are seen as essential (Barr, Low & Gray 2013; Gordon, 2006). There are reported differences of opinion regarding when to best provide interprofessional education. There are debates in the field regarding the timing of interprofessional education with it being deemed necessary for the development of professional knowledge and identity for pre-registration learners (Barr et al., 2013). This is pertinent in simulation-based education as individual tacit experiences of team working are drawn on when learning through simulation (Motola, Devine, Chung, Sullivan & Issenberg, 2013). These factors have shaped the scope of the study to focus on the facilitation of team-based simulation for post-registration learners for these reasons.

Theories that aim to describe and explain socially mediated interactions are viewed as particularly useful in interprofessional education as they consider when professions or collaborators learn with, from and about each other (Reeves et al., 2016; Hean, Craddock & Hammick, 2012). Specific terminology is used to describe difference in

learning approaches, often referred to in the literature as shared, common, multidisciplinary or interprofessional (Barr et al., 2013) and using clear definitions can help to articulate what interprofessional learning is and is not (Barr, Koppel, Reeves & Hammick, 2005). Literature concerning collaborative learning tries to distinguish between interprofessional and multiprofessional learning and CAIPE (2013) defines these in the following ways:

- Multiprofessional education is when members (or students) of two or more professions learn alongside one another: in other words, parallel rather than interactive learning.

And

- Interprofessional education occurs when students from various professions learn from and about each other to improve collaboration and the quality of care.

The term multidisciplinary is used to describe various professional working arrangements (Øvretveit, 1996). According to Petrie (1976), the term 'multi' refers to different healthcare professions working together to provide care, without necessarily interaction. This is a significant difference from interprofessional working where integrated and interdependent practice occurs (Reeves, Lewin, Espin & Zwarenstein, 2010). Whilst Oandasan and Reeves (2005) noted over ten years ago reiterated by Reeves, Xyrichis and Zwarenstein (2018), that terms can be employed interchangeably,

current discussions of what constitutes 'interprofessional' evolve as different interprofessional practices, are described (Xyrichis et al., 2018). This exemplifies the challenges of accurate use of terminology (Paradis & Reeves013; Reeves et al., 2010). Consequently, in this field, it can be difficult for practice-orientated educators to utilise knowledge and navigate working within a changing theoretical landscape (Xyrichis et al., 2018; Dow, Salas & Mazmanian, 2012). Notably Xyrichis et al., (2018) warn against uncritical adoption of terminology relating to the education of mixed professional groups without conceptual clarity over what the term exactly represents.

Considering this interchangeable use of terminology, where interprofessional or mulitprofessional simulation is referenced in the literature requires careful consideration, as Petrie's (1979) work four decades ago inferred, terms such as multiprofessional are unhelpful, failing to capture the necessary interactivity, a central tenet of team-orientated simulation approaches. It seems that confusion may persist and literature from the interprofessional field as it is suggested that reference to interprofessional simulation should not be automatically assumed as accurate but confirmed through descriptions provided of the approaches employed (Reeves & van Schaik, 2012).

Recent reviews of interprofessional education (Reeves et al., 2016) continue to reiterate features that can support ongoing interprofessional approaches such as faculty development (Anderson, Hean, O'Halloran, Pitt & Hammick, 2014), pedagogy that supports interprofessional learning (Reeves & Hean, 2013) alongside a call for

further studies to measure impact understand which learning and teaching approaches have positive impact outcomes of this resource intensive mode of study (Reeves et al., 2016). Literature from the interprofessional field helps to articulate the underpinning pedagogical approaches and terminological clarity describing what interprofessional education is and is not. As this study seeks to understand the social processes inherent in *interprofessional* simulation it is important to note that where studies describe simulation as *interprofessional*, the term *multiprofessional* may be more appropriate (Xyrichis et al., 2018). Therefore what constitutes multiprofessional as defined in the interprofessional field may be inappropriately described as interprofessional within the simulation literature. Exploring therefore how educators describe the processes of providing simulation to more than one professional group may therefore contribute to describing the practices that facilitate interprofessional simulation from the educator perspective and provides a key impetus for this study.

2.3   SIMULATION FOR MORE THAN ONE PROFESSIONAL GROUP

Educational evaluation frameworks are used to document that simulation has positive outcomes for improved patient care (Brydges, Hatala, Zendejas, Erwin & Cook, 2015; Cook et al., 2011). How interprofessional simulation specifically articulates learning with, from and about, for more than one professional group, using team training and crew resource management to improve patient outcomes is less understood and this

provide an impetus for this study (Gao, Peranson, Nyhof-Young, Kapoor & Rezmovitz, 2018). This is partly due to terminological clarity, challenges of educational evaluations of interprofessional activities (Reeves et al., 2016) and the variance of simulation and human factors outcomes (McGaghie, Issenberg, Petrusa & Scalese, 2010; Kirkman et al., 2015; Issenberg et al., 2005). Failla and Macauley (2014) use the following definition, which interestingly omits the interactive learning, 'with, from and about' synonymous with other interprofessional definitions:

'Interprofessional simulation occurs when two or more members from different healthcare professions participate in experiential and shared learning that is reflective and focuses on optimal health outcomes '

Failla and Macauley (2014, p. 577)

The rise in popularity of interprofessional simulation was in part a response to the publication of 'To Err is Human' (Kohn, Corrigan & Donaldson, 2000) that pushed for interprofessional simulation as a mode to address patient safety improvements.

Systematic reviews of interprofessional simulation (Gough et al., 2012; Zhang; Thompson & Miller, 2011), help to identify outcomes for describing team processes, self-reported development of 'teamwork' and effective communication. Notably these two reviews fall short of questioning the underlying assumptions of what constitutes interprofessional (Xyrichis et al 2018; Reeves & van Schaik, 2012). Where an interprofessional frame of reference is clearly articulated by authors (for example in Leclair et al., 2017), the interprofessional orientation can be more readily

contextualised by the reader. Reviews by Gough et al. (2012) and Zhang et al. (2010)

provide descriptive accounts of drivers, scenario orientation and learning outcomes

but lack an evaluative or theoretical articulation of interprofessional education.

Limitations in reporting theory use in interprofessional education and simulation for

more than one professional group are well documented (Reeves et al., 2016; Barr,

2013; Palaganas, Epps & Raemer, 2013). Where the educational approaches of

interprofessional simulation are reported in the undergraduate field, they do help to

articulate what works and in what circumstances: both seen as essential for effective

interprofessional education (Reeves et al., 2016). In an undergraduate context, such

benefits include self-reported changes to attitude and confidence when learning with

others, underpinned by theory (Buckley, Hensman, Thomas, Dudley, Nevin & Coleman;

2012). Examples of employing educational theory such as contextual socio-material

dynamics between learners and the simulation context, where learners both enact and

review practice as an embodied practice (Nyström, Dahlberg, Hult & Dahlgren. 2016 a;

Nyström, Edelbring, Hult & Dahlgren 2016 b), can contribute to the use of this

resource-intensive learning approach. Models that therefore help to articulate

processes and products of these educational experiences can contribute to improving

conceptual clarity when describing effective interprofessional simulation and help to

describe the processes educators engage with when providing simulation to more than

one professional group.

2.4 EDUCATOR PREPARATION

Simulation educators are an influential part of the simulation experience and embody facets such as role modelling, facilitator and information provider within the debriefing element of simulation (Dieckmann, Friis, Lippert & Østergaard, 2009). Educational approaches described in the literature suggest that simulation includes experiential, adult learning, constructivist approaches amongst others (Parker & Myrick, 2012). Crawford, Monks, Bailey and Fernandez, (2019) identifies no consensus in agreed training to validate level, length and content of education for simulation faculty development, reasoning that as the learning mode is evolving and the scale of provision is significant any identified certification would prove unwieldy. ASPiH, provide agreed practical standards to support simulation-based education in the UK (ASPiH, 2016) and specific features of simulation such as technological competency and debriefing techniques are valued. A number of tools exist to support faculty development when providing simulation, such as structured team process-analysis, de-briefing constructs and facilitated reflective process models to support learning (Grant, Robinson, Catena, Eppich & Cheng, 2018; Palaganas, Fey & Simon, 2016; Rudolph, Simon, Dufresne & Raemer, 2006). Whilst commentaries have provided 'top tips' for educators when aiming to provide interprofessional simulation (Boet, Bould, Layat Burn, & Reeves 2014) and best education guides for simulation (Motola et al 2013), there is less consideration of the social processes educators are engaged with during interprofessional simulation (Sharma Boet, Kitto, & Reeves 2011).

In both simulation and interprofessional education, faculty facilitation skill-sets are seen to impact on learning and educators have reported under-preparedness for facilitator roles, for both approaches (Endacott, Gale, O'Connor & Dix, 2019; Coggle, Hackett, Owens, Ansello & Matthews, 2016; Reeves et al., 2016). Studies have described improved self-efficacy for educators participating in development programmes that address awareness of collaborative practice and opportunities to share different approaches (Coggle et al., 2016). Educator attitudes, expectations, institutional support and commitment are influential factors in providing effective learning and educators report satisfaction when delivering authentic experiences (Watkins, 2016). Exploration of pedagogy, reflection and educational leadership are reported features of faculty development programmes with additional features of valuing diversity, role modelling and a considered dialogue concerning group processes (Watkins, 2016). Loversidge and Demb (2015) note that when educators reported providing authentic collaborative learning experiences, their reports focussed on patient need rather than a direct consideration of the hierarchical processes within teams, and where subsequently, team cultures were explored this was viewed as impactful by educators.

Institutional influence, if not supportive was viewed as a barrier (Loversidge & Demb, 2015), and conversely enabled growth of institutional capacity, improved faculty networks and enhanced educator knowledge where simulation is valued (Abu-Rish

Blakeney, Pfeifle, Jones, Hall & Zierler, 2016). Dieckmann et al., (2018) identify

individual beneficial effects of working as a simulation educator such as the transfer of

best practice within their own clinical roles and the transformative nature of being a

simulation educator that beneficially impacts on both professional and private worlds.

2.5   SUMMARY

The findings from this narrative review shared in this chapter help to set the scene and

to contextualise the study. Both interprofessional education and theory alongside

simulation have been considered and where these interprofessional education and

theory intersect with simulation in the literature. Whilst the literature focusses on the

interprofessional features of simulation in an undergraduate setting, there is less

consideration to the processes of interprofessioanl simulation in post -registration

learners and the processes educators are engaged with when providing

interprofessional simulation for this learner group.

There continues to be a lack of terminological clarity associated with describing

interprofessional simulation. Literature describing interprofessional simulation for

post -qualification learning provides a limited consideration of educational theory and

educator preparedness, which is reflective of the debates concerning terminology and

pedagogy described here. How interprofessional simulation is provided from an

educator perspective is less understood in the literature, providing an impetus for this

study. In keeping with grounded theory approaches, further consideration of the

literature and findings of the initial review are revisiting throughout the findings and

discussion chapters.

3 THE STUDY DESIGN

Grounded theory involves taking comparisons from data and reaching up to construct abstractions and simultaneously reaching down to tie these abstractions to data.

(Charmaz, 2014, p. 323)

Researchers adopt grounded theory approaches to generate a substantive theory to explain a phenomenon in an unexplored area of social life, where the theory is co-constructed through the study between the researcher and participant. When using this method the researcher, provides a full and transparent explanation of the approaches used to allow the reader to decide if the study is relevant and applicable to other settings.

3.1 INTRODUCTION TO THE CHAPTER

This chapter describes the methodology underpinning the study. Firstly, the ontological and epistemological orientation will be outlined, helping to locate the philosophical and theoretical perspective of the work and chosen methodological approach. Secondly a consideration of the origins of grounded theory is presented and the development of a constructionist approach to grounded theory used in this study

is outlined. The importance of reflexivity, rigour and ethical issues that arise from

using this approach are then explored as a feature of the methodology and study

methods, followed by an introduction to the study participants.

Figure 1 - Adapted from Crotty's framework (1998)

3.2   EPISTEMOLOGY

The notion of what constitutes reality is of importance to researchers, as research aims

to 'communicate ideas and understandings about the world' (Lincoln & Guba, 2000, p.

167). This encourages in-depth thinking and helps to clarify personal assumptions

relating to held values (Denzin & Lincoln, 2005). Crotty (1998) provides a framework

for researchers in which they can distinguish the 'basic elements' (Crotty, 1998, p.2) of any research process as illustrated in Figure 1 above. This framework defines the differences between epistemology, theoretical perspective, methodology and methods. Crotty (1998) advises that ontology and epistemology are reciprocal, as consideration of meaning construction is to talk about the construction of a meaningful reality. Epistemology is seen as foundational within the research process, defined as the theory of knowledge (Crotty, 1998) providing the basis on which the theoretical perspective is orientated, linking the aims and methods of the study (Weaver & Olson, 2006). Subsequently the methodology helps to describe the research design within which research methods are conducted.

The ontological and epistemological approach informing this study design is constructionism. The epistemological approach of constructionism adopted within this study is situated within an interpretive theoretical perspective (Denzin & Lincoln, 2011). In considering this interpretivist orientation, constructivism, as an individualistic understanding of knowledge creation (Crotty, 1998; Gergen, 2015), could also provide meaningful foundations for this study as constructivism is concerned with individual meaning-making, describing innate capacities of the individual mind (Schwandt, 2014; Gergan, 2015). Gergan (2015) acknowledges that constructivism and constructionism have become synonymous, as few scholars continue to hold radical constructivist views, social constructivism can also describe how individual mental capacities are held through social relations. However, a fundamental aspect of constructionism is the

social construction of meaning where key concepts such as identity, role and social function are explained (Bryman, 2016). As this study is concerned with educators' understanding of their practice, their meaning-making is defined in relation to their role within social structures and in turn the meaning-making in social action for their learners, then a constructionist orientation provides a reasoned philosophical stance for this study. This is in recognition of Gergen's (2015, p.30) arguments that constructivist views 'struggle(s) to explain how we ever come up with our private categories of understanding, or how we could ever communicate if we had such a unique system of understanding'.

Constructionism places emphasis on both individual and structural interactions as shaping ways of knowing, fostering a critical spirit to understand the collective generation and transmission of meaning (Crotty, 1998; Gergen, 2015). Central to constructionism is the possibility that meanings are fluid and therefore a constructionist ontology accepts the possibility of multiple realities in a subjective epistemology (Denzin & Lincoln, 2011). Gergan (2015) traces the development of constructionism through several traditions that question 'the taken for granted logics or realities of the dominant culture' (Gergan, 2015, p.16). Gergan notes that Kuhn's (1962) description of paradigms is a signifier acknowledging that researchers approach the world within such world views, and points to the subsequent shifts challenging the positivist premise of a single truth or reality.

Authors (Gergen, 2015; Charmaz, 2013; Crotty, 1998) support the view that

constructionist approaches foster debate regarding dominant narratives, positions and

meanings. This helps to provide a deeper critical understanding of how dominant

narratives that are 'culturally and historically situated' (Crotty, 1998, p.67) influence

individuals and groups to gain new understanding and ways to see the world.

3.3   THEORETICAL PERSPECTIVE

Crotty (1998, p.3) identifies that the theoretical perspective articulates 'the

philosophical stance' of the study and provides a context and criteria for the processes

of research. The researcher in also describing their own theoretical perspective, also

attempts to communicate coherence in the approaches adopted that in turn also

shape the selection of appropriate methodologies.

The interpretive paradigm supports understanding of human phenomena within

multiple realties (Charmaz, 2004; Denzin & Lincoln, 2011). An interpretivist theoretical

perspective requires that researchers recognise that they are part of the world they

are researching, rather than external to it (Charmaz, 2014). Emergence of the

interpretivist perspective is set against a backdrop of dissatisfaction with positivistic

traditions that include objective methodologies that, it is claimed, limit advancement

of understanding the social world (Gergen, 2015). Holding an interpretivist and

constructionist position, values that, over time and in different places, there are

divergent understandings of different phenomena (Crotty, 1998). Charmaz (Charmaz

& Keller, 2016; Charmaz, 2014) has identified symbolic interactionism as a key theoretical perspective in her work. Symbolic interactionism (Blumer, 1969) describes how people construct 'self, situation and society' (Charmaz, 2014, p. 262) and act through the meaning they place on others or things, derived through social interaction and subsequently interpreted to make sense of within their social world. The theoretical perspective of the grounded theory version used in this study does not align solely with symbolic interactionism, but also draws on Marxist theories of power and relations that recognises that human action is situated within pre-existing, often not known, conditions and constraints that require both critique and interpretation (Charmaz & Keller, 2016; Charmaz, 2014).

Within the context of interprofessional education and simulation where hierarchy, power and relationships are seen to be significant (Paradis & Whitehead, 2015; Barr et al., 2013), social constructionism described here is proposed as a useful paradigm to explore these discourses (Thistlethwaite, 2012; Hean et al., 2013; Kitto, Chesters, Thistlethwaite & Reeves, 2011). A constructionist study of interprofessional simulation is appropriate considering these antecedents and my own experiences as an educator, inform a perspective that learning is a socially mediated interaction and power relations and hierarchy are at play in providing patient care. In this study, illuminating how educators describe their practice requires an exploration and articulation of the constructions surrounding both interprofessional and simulation concepts and where these intersect.

3.4 METHODOLOGY

Crotty (1998, p.3) describes methodology as a 'strategy or plan of action', underpinning the choice of methods and their employment in the study. Methodologies align with a theoretical and epistemological perspective and their lineage can be interpreted to originate from a variety of positions and grounded theory can be considered from both positivist and interpretive positions (Charmaz, 2014; Crotty, 1998). In considering the approach used in this study, other options could have also been utilised, such as phenomenology if an exploration of personal lived experiences as an educator had been under investigation. However, phenomenology would not help to describe previously unseen basic social processes or help to provide an explanatory model, grounded in participant experience (Starks & Brown Trinidad, 2007).

3.4.1 GROUNDED THEORY

Charmaz (2014) views the publication of The Discovery of Grounded Theory (Glaser & Strauss, 1967) as a cutting-edge statement set against the dominant positivist methodologies serving predominantly quantitative studies of the time. The development of Grounded Theory in this context was considered in part as a response to the positivistic dominance in social research (Ward, Gott & Hoare, 2015). However, Bryant and Charmaz (2007, p.48) identify a 'double-edged' justifying of qualitative research by the early Grounded Theory developments 'imposing a positivist mantle on

that process'. These are represented by incongruous procedural features such as claims of theory emerging from the researcher's objective stance, this being adopted in alliance with the dominant positivistic objectivist lens of the time (Ward et al., 2015).

From Grounded Theory's beginnings there have been many methodological turns (Mills, Chapman, Bonner & Francis, 2006; Clarke, 2009) from positivistic leanings (Glaser & Strauss, 1967) and as Grounded Theory evolved, to postmodern situational positioning (Clarke, 2009) and critical realist stances (Oliver, 2012). These represent different approaches namely classic, constructivist/constructionist, situational analysis and critical-realist approaches based on a range of epistemological orientations. This study adoptsa constructionist epistemological standpoint within an interpretative theoretical perspective, which can be described as aligning with Charmaz's approach to Grounded Theory (Charmaz, 2008) and is seen to be a 'fit' in understanding educators' descriptions of interprofessional simulation being socially constructed.

3.4.2 CONSTRUCTIONIST/CONSTRUCTIVIST GROUNDED THEORY

There is the potential to view Charmaz's epistemological orientation as blurred (Charmaz & Keller, 2016). As Grounded Theory wound around the methodological spiral (Mills et al., 2006), Charmaz (2006, 2008) has presented both constructivist and constructionist perspectives of Grounded Theory methods. Charmaz, (2008; Charmaz & Keller, 2016) however identifies that her version of Grounded Theory is better articulated within constructionism, and her earlier disucssion of constructivist

grounded theory should be contextualised within twentieth century perspectives that 'considered research worlds as social constructions, but not research practices' (Charmaz, 2008, p. 398). Charmaz made a subsequent realignment of an initial constructivist epistemological consideration to one of constructionism (Charmaz, 2008, p. 398) claim it:

- 'treats the research process itself as a social process;

- scrutinises research decisions and directions;

- improvises methodological and analytic strategies throughout the research process;

- and collects sufficient data to discern and document how research participants construct their lives and worlds.'

Charmaz (2008) suggests that the researcher should apply approaches that facilitate their understanding of how and why participants construct their realities. This supports subsequent interpretations about this reality through identifying meaning and action in social structures, of which participants are possibly unaware. My point of departure was to explore how educators describe providing simulation for more than one professional group whilst viewing knowledge as co-constructed between the educator and learners during simulation. The epistemological orientation of constructionism is therefore well-suited to the area of interest, my own theoretical alignment and the study design.

As we co-create knowledge as part of the research process, Charmaz contests that to learn about the world we need to study it from the inside, (Charmaz, 2006). Charmaz's (2008) constructionist approach makes the following propositions that are adopted in this study, namely:

- reality is multiple, processional and constructed;

- the research process emerges from interaction;

- the researcher's positionality as well as that of the research participants is considered;

- the researcher and researched co-construct the data and data are a product of the research process.

Charmaz identifies the co-construction of experience and the significance of researcher reflexivity in how: they work with the process; their participants and in maintaining a critical eye over their own interpretations; subsequent decisions and ways these are represented to others (Charmaz, 2008). The issue of reflexivity in the context of this study is discussed later in this chapter.

3.5   RESEARCH DESIGN AND METHODS

Crotty (1998, p.6) defines the methods used in a study as 'the concrete techniques or procedures we plan to use'. The procedures involved in this constructionist Grounded Theory study are presented here in a linear way for ease of reading. However, it should

be noted that this process is iterative in nature, as data collection, analysis and multiple analytical ideas both occur and are pursued concurrently during the process.

Figure 2 illustrates a Grounded Theory approach starting with a research question, recruitment and sampling of participants, data collection, initial and focussed coding, theory building and writing up. Alongside this trajectory, the researcher engages in the constant comparative method, employment of memos, diagram production, reflexive diary keeping and theoretical sampling. The remainder of this chapter will explore these strategies in more detail and use examples from this study to enable the reader to follow the co-construction of *Putting on a Show* as a grounded theory.

CONSTANT COMPARATIVE METHOD

Reaching towards SATURATION

Develop understanding... Question... Fill properties

Examples from data present in New Data

Theoretical Sampling Developing Theoretical Categories

Writing up

Theory Building

Focused Coding / Categorising

Initial Coding

Data Collection

Recruitment + Sampling

Research Question

"Putting on a show"

Memo Writing

Diagramming

FIGURE 2 – ADAPTED FROM CHARMAZ (2014, P.18)

3.6 ETHICAL CONSIDERATIONS

The setting for this study included both higher education and NHS hospital-based simulation providers. Ethical approval for the study was gained from the University Ethics Committee and via the Integrated Research Application System (IRAS); both structures are there to govern that research is carried out to the highest standards. IRAS provides regulation and governance for research in a range of health and social care communities through a single application system, which was required to enable access to NHS hospital employees, (see Appendix 1 page 289 for details of the study identifier, permissions, consent and participant information forms). Progress from University Ethics approval to IRAS approval was slow. However, once this was assured for each NHS Trust that employed the participants, the researcher arranged a research passport to access and collect data.

3.6.1 CONSENT

Informed consent requires that the researcher provides the fullest account of what the research is about, including: who the researcher is, why the research is being undertaken and how it will be used and disseminated (Bryman, 2016). Providing informed consent began when promoting the study on the regional network and as inquiries were received, further information was provided. At the point of interview, this information was repeated, namely participant information sheets were shared alongside two identical copies of consent forms so participants could keep a copy.

Each participant was asked to formally agree consent to participate at the start of each recorded interview (see Appendix 1 page 282). There were no anticipated aspects of the interview experience that would cause the participants to recount upsetting experiences or to become distressed for any reason. All participants were provided with the contact details of the researcher and supervisors should they wish to discuss any issues concerning the study. All participants were able to freely leave the study at any time knowing that there would be no negative consequences. Interviews lasted between 60 and 90 minutes and were recorded using two digital recorders. Immediately following the interview participants were thanked and asked if they would wish to receive a copy of their interview once transcribed. All participants were asked if they would like to be kept informed of the studies progress and two participants requested this.

3.6.2 CONFIDENTIALITY

Several mechanisms were used to ensure that anonymity and confidentiality were maintained in the study. To ensure the level of privacy preferred by participants, they were asked to identify a place that they wished to be interviewed; all participants asked, this was either their workplace or another accessible public space of their choosing close to their workplace. One participant worked in the researcher's organisation and particular care was taken to ensure their participation remained anonymous and that the study had no impact on any of their work obligations. All

participants were informed of the ways in which their anonymity would be assured through the process of the study. Participant accounts were anonymised, given a unique identifier, any references to their work was redacted and described to reflect an organisation, for example 'an NHS trust', any specific features or type of simulation that could be attributed to them of their workplace was removed, in keeping with anonymising guidance (Graham, 2012). Participants were allocated pseudonyms that matched their gender, and these were used on transcripts and in reporting the study. One participant referred to themselves in the interview in a rhetorical way, which was later redacted. The researcher personally transcribed the first two recorded interviews, to enable a close handling of the data, but due to time and work pressure, all subsequent interviews were transcribed by a professional transcriber, who signed a confidentiality agreement.

The European Union (including UK) General Data Protection Regulation (European Commission, 2018; Graham, 2012), guided the governance of data that had been generated in this study, alongside local arrangements for processing, holding and using personal data. In keeping with University requirements, all data and analysis was stored on a secured drive provided by the university under password protection. Any paper documentation was kept in a locked drawer in a locked office located behind a key card access system. Following completion of the study, all documentation, paper or in electronic form, will be managed in line with University guidance and data protection legislation (European Union, 2018; Graham, 2012).

3.7   RECRUITMENT AND SELECTION OF THE PARTICIPANTS

As the research focussed on the simulation practice of educators who provided post-registration education to more than one professional group, purposive sampling was adopted to meet the requirements of the study (Silverman, 2011). Purposive sampling is a strategic approach to sampling participants with selection criteria relevant to the research aims and having experience of the phenomenon at hand (Bryman, 2016). Recruitment of participants was enabled through an email circulation list from a single regional network of simulation providers. This accessible network provided good reach to individuals engaged in simulation and provided access to the various types of simulation providers, namely, a regional centre, hospital -based simulation and clinical education facilities, typical of facilities available in the UK context (ASPiH 2016). The network was popular with simulation providers in the local geographical area. The group met quarterly, held regional conferences and used an email distribution list to communicate. Members of the group were predominantly doctors and nurses who provided simulation based education. Following ethical approval, the organiser of the network was approached and agreed to post an email that invited members to participate in the study (see Appendix 1 p286), the invitation to participate was sent to the email circulation address to which 37 named individuals where attached. The network was very responsive and twelve individuals in total responded initially indicating their interest, of these twelve, no one dropped out of the initial recruitment however, seven participants were interviewed in total. Subsequent access to

individuals who had volunteered and were based in NHS settings was navigated

through the IRAS application process and local access using research passports at each

employing trust. This was a time-consuming activity indicated in the delay, from

approval to conduct the study and first interviews with NHS staff as described in Table

2 (page 63).

Decisions to end data collection were made in conjunction with the supervisory team

and are described later in this chapter.

3.7.1 SELECTION CRITERIA

Generic purposive sampling with *a priori* criteria (Bryman, 2016) was used, with the

following inclusion criteria:

- Working as a simulation educator;

- Providing post-registration simulation-based education;

- Providing team-orientated simulation to more than one professional group in

  the NHS or higher education settings.

Once potential participants indicated via email that they were interested in

participating, further information was provided regarding the study, including what

participation would involve. Once the first four interviews were organised, the

remainder were sent a further email explaining that the data collection was in progress,

were thanked for their response informed that the researcher would be in touch in

due course to explore if they were still happy to be interviewed as the study progressed. Following agreement to proceed, the researcher negotiated a time and an appropriate place to meet with each participant.

3.8   STUDY AIMS AND RESEARCH QUESTIONS

The aims of this study were as follows:

- To generate theoretical understanding of educator practices when providing team-orientated simulation for more than one professional group.
- To contribute to knowledge that has application to practice and theory development of both interprofessional education, simulation and where these two approaches intersect.

The main research question for this study was:

What are the processes that simulation educators engage with in their practice when providing team-based simulation to more than one professional group?

3.9   DATA COLLECTION

Data was collected via in-depth semi structured interviews. Introductory questions gathered information about the participant that provided demographic information such as: professional background; types of simulation offered; types of learners; types of post registration or continuing professional development opportunities provided;

length of time providing simulation; educational preparation and these are summarised in Appendix 2 page 291.

The interviews were guided initially by a mapping technique called Pictor with four of the seven participants. In the remaining three interviews, the mapping was discontinued. This decision was directed by analysis and emergent sub-categories and categories. This is in keeping with the grounded theory approach used in this study that advocates the adoption of methods to suit the research as the work progresses and new questions come to the fore (Charmaz, 2014). The Pictor technique is explored in the next section.

3.9.1 Visual Mapping Using Pictor

Pictor was used with four participants to create a 'map' of how they went about providing simulation and this map became a guide for the semi-structured interview.

Diagrams and other types of images can assist the communication of ideas, and illustrations or maps can be used to explore research participants' understanding or thinking strategies (Umoquit, Tso, Burchett & Dobrow, 2011). Several authors (Bryans & Mavin, 2006; Nesbit & Adesope, 2006; Buckley & Waring, 2013) have considered how diagrams and illustrations alongside other visual methods in qualitative interviews help simplify complex subject matter, abstract ideas, pedagogical constructs and relationships to support a reflexive conversation between researcher and participant. The representation of data in a diagram or map can aid descriptions of structure whilst

providing flexibility, as the representation created is a participant-owned construction (Umoquit et al., 2011).

3.9.2 WHAT IS PICTOR?

Pictor is a method used to explore relationships through the creation of representative diagrams (Kelly, 1955). This form of diagramming (see Figure 3 below), described here as a map, uses coloured arrows placed to capture elements of a situation, where proximity, direction and position of the arrow can highlight elements of relationships the participant deems important. The created map then shapes the interview questions, for example '*why is this arrow here, and how does it relate to X or Y?*'

FIGURE 3 - EXAMPLE OF A PICTOR MAP

The mapping method is adapted from family therapy interventions informed by personal construct theory, (Kelly, 1955) and the social network method (Hargreaves, 1979) and has been used to explore collaborative relationships and reflective accounts of team working (King, Bravington, Brooks, Hardy, Melvin & Wilde, 2013; Ross, King & Firth, 2005), patient experiences (Hardy, King & Firth, 2012) and undergraduate reflections on collaborative practice (Bravington, 2011). Richard (2002) describes how diagrams are useful to identify and illustrate spatial connections that correspond to relationships between concerns. Copeland and Agosto (2012) advocate the benefits of mapping to recall themes and suggest completed maps should be included in any study as useful contextual data and those produced in this study can be found in Appendix 3 page 294. Ross, King and Firth (2005) reported that using Pictor mapping facilitated an exploration of ideal versions of collaborative working and uncovered taken for granted practice, noting that the method provided an anchor for participants when considering complex situations and therefore a useful method to use in the context of this study.

3.9.3 Approach to Pictor used in this Study

As part of the professional doctorate programme, the researcher had previously explored the use of diagramming as a data collection tool, using Pictor as an example. Rather than this acting as a pilot, this activity allowed the researcher to become familiar and gain confidence with the method when used in the interview setting.

Charmaz (2006) encourages researchers to think about the most appropriate method to help generate data that aligns with the 'logic of grounded theory' (Charmaz, 2006, p.16). The Pictor technique, used with the first four participants, was chosen as part of this study to provide a stimulus for participants as, discussing the map of their simulation practice would enable both a broad and detailed view of a complex phenomenon from their perspective. Furthermore, the maps in this study illustrated features of simulation and their interrelationships and provided opportunities for the researcher to ask about those features that were present and absent in the maps created.

The method involves a large piece of paper laid out on a table and arrow-shaped sticky notes in a variety of colours. Participants were asked to use the sticky notes to capture the processes of their work when preparing, delivering and debriefing simulation. Researchers using the method advocated they left the room as the participant develops their map (Hardy, King & Firth, 2012) and to subsequently review the created diagram together. The researcher was mindful that participants might feel uneasy using the technique and this is reflected in the literature where participants can feel self-conscious about creating drawings as part of a research process (Kearney & Hyle, 2004). Assuring participants that there was no right or wrong way to complete a map helped to complete the activity. In this study the researcher asked each participant what they preferred and consequently left the participants for 10 minutes to complete their map.

Interviews accompanied the mapping exercise as many authors note the importance of gathering a commentary to explain the meanings of diagrams, (Fox, McCormick, Procter & Carmichael, 2007; Varga-Atkins & O'Brien, 2009) and suggests an absence of commentary, which provides a context, reduces their value (Copeland & Agosto, 2012).

3.9.4 THE INTERVIEW

In-depth semi-structured interviews were used in this study, viewed as a common approach to data collection in qualitative studies, as the co-production of knowledge through conversation is experienced as a recognisable activity in modern life (Bryman, 2016; Silverman, 2011; Kvale & Brinkmann, 2008). The epistemic nature of the interview is acknowledged here as a co-construction, as the researcher functions within a presented role, data is co-constructed to fit parameters, such as the scope of the study (Silverman, 2011). Kvale and Brinkmann (2008) guide the novice researcher to consider ethically and reflexively the craft of the interview, to foster the participants' interpretation of their experience (Charmaz, 2014). This approach necessitates open-ended questioning with an accompanying non-judgemental and qualified naïveté (Kvale & Brinkmann, 2008). Introductory questions addressed demographic information such as; professional background, types of simulation offered, range of learners, range of post registration or continuing professional development opportunities through simulation provided, length of time providing simulation and educational preparation (see Appendix 2 page 291).

The map created then provided an interview guide and the questions asked encouraged reflection about the topic (Charmaz, 2014), these included:

- Describe how you have created your (Pictor) map?

- Where did you start and why there?

- Tell me about the approaches that you use in simulation using the map as a guide, the design, delivery and debrief?

- Is there anything else you would like to say?

- Is there anything else you would like to ask me?

Questions were used to encourage the participants to describe how they viewed their practice within the services they worked and the simulation they provided. The created maps helped participants to articulate their landscape as an educator, namely social, cultural, professional and organisational structures alongside their personal experience of providing simulation. Theoretical sampling shaped the interviewing guide as tentative categories developed through analysis as the study progressed. Theoretical sampling in Grounded Theory methods is used to examine theoretical leads, through an iterative engagement with analysis, directed by evolving theoretical constructs to sample additional incidents, events, activities, or populations (Schwandt, 2014). Consequently, the last three interviews conducted in the study used a topic guide (see Appendix 1 page 288) alongside tentative themes emerging from the first four interviews as part of the interview questions such as:

If this is a performance can you describe to me what you are wanting to achieve?

The researcher transcribed the first two interviews verbatim as they occurred, which was time-consuming and with little direction on the process of how to do this from the literature (Bryman, 2016; Davidson, 2009). The time demands of transcription undertaken by the researcher, resulted in a trained transcriber being accessed through the university for the subsequent transcripts. Concerns regarding using an external transcriber such as threats to accuracy, unfamiliarity with terms and lack of insight regarding redacting names as described by Davidson (2009), were overcome in this study by checking the audio files against the produced transcripts and frequently listening to the recordings when engaged in coding.

Computerised data management and analysis software was not used in this study. Whilst programmes such as NVivo offer to handle primary data, memos, field notes and images (Bazeley & Jackson, 2013), data management for this study was organised on a digital document in a tabular format. The rationale for this was that the researcher found available software a barrier rather than an enabler to the process of coding, recognising that choices to use designed software can create forced structures to the work and ultimately researcher preference directs data management and the practicalities of coding (Richards, 2014). Interviews and analysis occurred concurrently, and the sequencing of interviews is detailed in Table 2.

Table 2 Interview dates

TIMELINE OF THE STUDY	DATES
University ethics approval	13/05/2015
IRAS #182012 approval	29/07/2015
Access to research passport and reciprocal access to NHS staff	07/08/2015
Interview 1	24/06/2015
Interview 2	13/08/2015
Interview 3	12/11/2015
Interview 4	12/11/2015
Interview 5	22/04/2016
Interview 6	29/04/2016
Interview 7	04/05/2016

3.10 DATA ANALYSIS APPROACHES

Coding is pivotal to Grounded Theory approaches, where the researcher begins to engage with what the study is all about, creating codes *grounded* in data (Charmaz, 2009). Charmaz (2014) identifies two key stages of coding, initial and focussed, conducted alongside constant comparative analysis. Construction of initial codes involved word, line and section-by-section naming (assigning a label to data) whilst

remaining open to all possible interpretations (Richards, 2014). Using gerunds to label

codes helped to facilitate a close reading of the data, to avoid creating stereotypes of

participants and restrained any initial conceptual leaps, coding remained provisional

and open to refinement, to capture the essence of meaning or action (Charmaz, 2014,

p.117). Examples included *doing this before, it's the backdrop* with an associated

focussed code: *working the backdrop*.

In vivo codes are drawn directly from the participants' utterances, helping to maintain

their voice within the data, to provide a symbolic marker that highlights representative

meaning and provide insight into familiar terms to help sum up an aspect of the

participants' world; examples include, *like a stage,* and *nurses as props.*

The constant comparative analysis process (Glaser & Strauss, 2009), is a labour-

intensive method for theory development arising from the data, through concurrent

coding and analysing (Kolb, 2012; Charmaz, 2006). The process is integral to this

grounded theory approach, making comparisons throughout every stage of analysis.

As the study progresses this drives memoing, constructing core categories and guides

the interview process. Focussed coding involves selecting frequent and significant

codes in order to organise, categorise and integrate them. As part of the comparative

iterative process, initial codes are assessed to establish codes with analytic agency that

provide theoretical reach and are central to the participant experience. This action

begins to provide tentative emergent categories. Whereas axial codes in original

forms of grounded theory created procedurally categorised dimensions of a category,

Charmaz (2014) describes instead the employment of propositions as an emergent activity that demonstrates the links between sub-categories and categories. Examples include *the playwright* (sub-category) works with (proposition) *the backstory (*sub-category) when preparing for (proposition) *putting on a show* (core category).

When theoretically coding, Charmaz (2014, p.89) notes that 'theoretical plausibility of an idea that gains theoretical centrality and subsequent adequacy, provides direction for the study and is engaged with alongside coding and memo writing'. Theoretical coding 'solidifies analysis' (Charmaz, 2014, p.19) rendering plausible the emergent theory being grounded in a broad and deep consideration of the data and accounts, this in turn illuminates limited ideas and inaccurate data that can be easily identified and discarded.

3.10.1 MEMOS, CLUSTERING AND FREE WRITING

Writing memos occurred throughout the concurrent data collection and analytical processes. Memos became less tentative and more theoretically positioned as the study progressed informed by a reflexive methodological journal. Using illustrations and free writing techniques as part of memo writing punctuated the iterative data collection and analytical processes in this study. Charmaz (2014) describes memos as useful to capture ideas, creating a reflexive space to consider theoretical direction, for example in this study after a night out to hear Grayson Perry talk about his book: *The Descent of Man*, (Perry, 2017) his notion of defaulting man resonated with the taken

for granted practices that the simulation educators' accounts held. The notion of

default views held theoretical depth and was built on an 'inductive foundation'

(Charmaz, 2014, p.182). Writing a memo following Perry's talk explored default

described in this study and led to a deeper exploration of Mulvey's (1997) feminist

critique of cinema (see Appendix 4 page 295).

3.10.2 THEORETICAL SAMPLING, DIAGRAMMING

Theoretical sampling relates to the 'conceptual and theoretical development' of the

analysis in the study (Charmaz, 2014, p.198). This process demanded looking at

existing analysis alongside returning to conduct more interviews. Following the first

four interviews, accompanying analysis and emergent tentative categories, the

interview guides were re-shaped, using theoretical sampling strategies. This strategy

alongside writing memos began to focus the data collection around specific functions

of performance, asking questions of participants such as:

Earlier participants have used references from the theatre/stage to describe what they

do, if this resonates with you and you were to use such a description for your role, who

would you say you were like and why?

Subsequent interviews started to explore the emergent theoretical categories and this

sampling was purposeful to establish the extent of the properties of a category, (a

topic guide was produced to guide the interviews see Appendix 1 page 288). This both

saturates a category with data and helps to organise the category when combined with diagrams, to create a theoretical statement (Charmaz, 2014).

Abductive reasoning was applied in this study, for example when considering the notion of *default*, where one participant's description of practice did not fit with the rest of the interviewees. Reflexive activities, such as adopting a critical stance and revisiting data at this stage helped to ensure that default deserved to be included as it illuminated a category of the study in a powerful way. Returning to the data, the default concept helped to explicate default within a negative case also, demonstrating theoretical sensitivity, using the notion of default as Charmaz (2014, p.203) suggests 'as a lens for seeing'.

FIGURE 4 - EXAMPLE OF DIAGRAMMING IN THE STUDY

Diagrams are a useful tool in grounded theory helping to support conceptualisation, explore logical progression, create visual representation and capture emergent ideas (Charmaz, 2014; Buckley & Waring, 2013). In this study diagrams were frequently used to support analysis and the writing of the substantive theory (see Figure 5). They are included in part to illustrate the analytical processes but also to communicate the substantive theory to others (Buckley & Waring, 2013).

All participants were offered the opportunity to gain feedback on the study. Two participants (Greg and Matt) asked to be kept informed and reviewed a summary of the emergent analysis once data collection had ended. Whilst this did not constitute member checking where a final review of the whole substantive theory occurred (Charmaz, 2006) these conversations did help to confirm and check the relevance of the emergent theory to their practice.

An integrative diagram developed (see Figure 5) illustrated the conceptual links between categories, leading to the question, 'What is it that links these separate roles?' which contributed to identifying the core category.
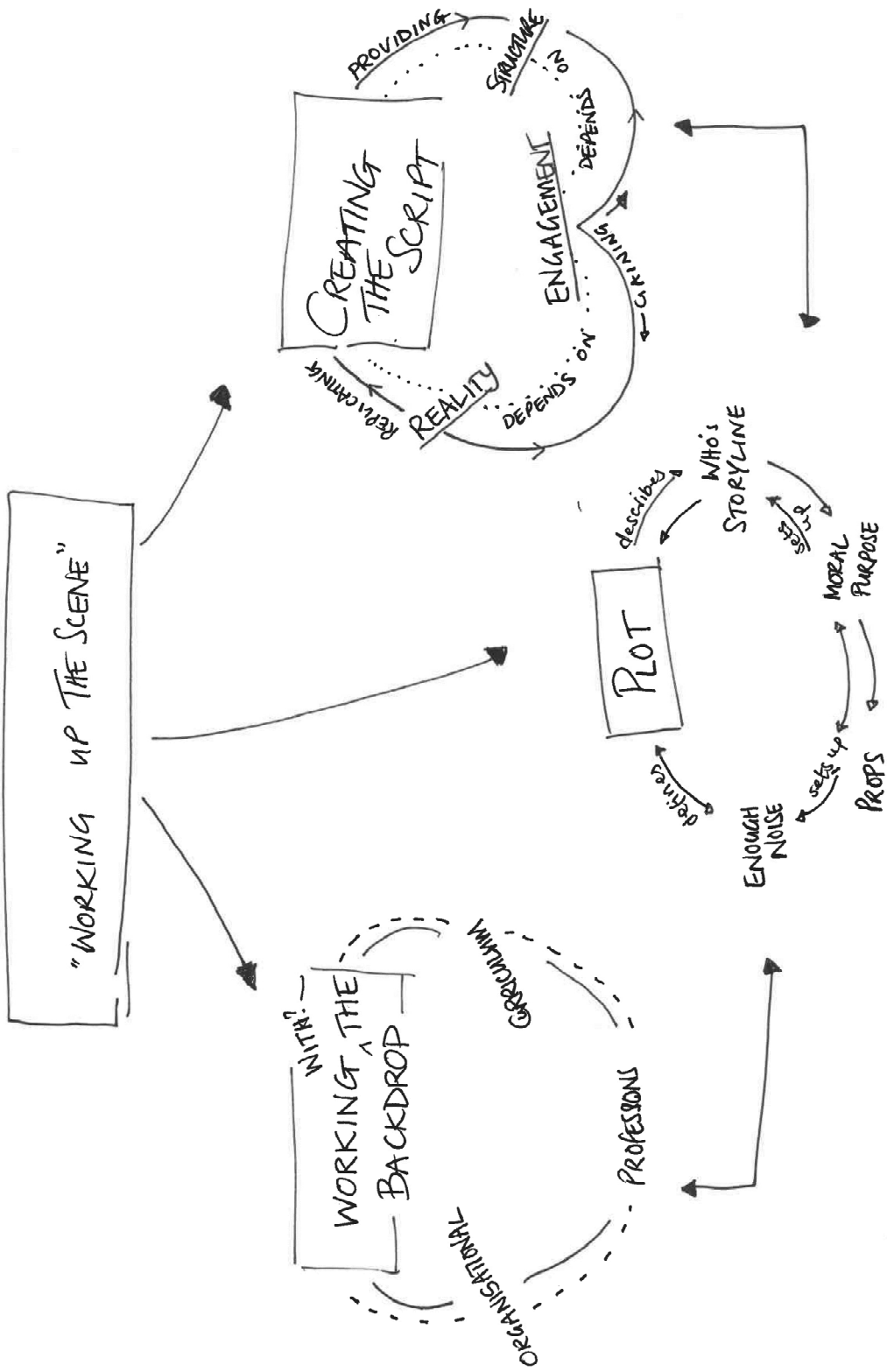
FIGURE 5 - EXAMPLE OF AN EARLY INTEGRATIVE DIAGRAM

3.11 THEORETICAL SATURATION AND WRITING UP THE STUDY

Whilst it is not possible to claim saturation on the basis of seven interviews, it was noted that on completion of these interviews that when categories were compared, no further new properties within the categories had emerged and explanatory relationships of the theory could be extrapolated. It has been asserted that researchers with strong interviewing skills will require fewer participants as they can guide and encourage a participant to reveal data (Morse, 2000; Strauss & Corbin, 1998). Perhaps it can be claimed that the researcher background as a nurse and educator enhanced the generation of rich data.

In keeping with this approach, writing up the study provided opportunities (through many drafts) to both reflect on the research process and engage reflexively with constructing the theory, of how, what and why (Charmaz, 2014; Bryman, 2016), concerning educator experiences of interprofessional simulation. An ongoing literature review was conducted as the study progressed and visiting the literature latterly provided comparisons to work not previously considered and explored how the substantive theory presented here fits within extant ideas. This study produced a substantive theory of how simulation educators provide interprofessional simulation, contextual to the setting and in keeping with the methodological approach (Charmaz, 2006).

3.12 REFLEXIVITY

As social constructionism recognises that cultural norms operate for everyone,

reflexivity is important to appreciate the researcher's socio-cultural, historical and

personal perspectives. This is acknowledged at every stage in this study and any

interpretation of the work should take this reflexive position into account; seeing

decisions in the research process as iterative, shaped by a continual process-conscious

reflection.

Schwandt (2001) provides a useful guide to consider reflexivity on three levels, firstly

as a process of critical self-reflection, secondly in recognition of the contribution the

researcher makes to the setting of the phenomenon they are exploring, and thirdly

providing a way to critically review the research process in its entirety. These three

approaches help to recognise implicit and explicit constructs that shape the research

process in a dynamic way (Finlay & Gough, 2008). Reflexivity commences at the outset

of the research process, and for this researcher formed part of the professional

doctorate programme and helped to shape the research proposal, questioning aspects

of the research process (Cunliffe, 2003) detailed in this chapter. Employing a reflexive

stance at the earliest point in the study has helped the researcher to be open in her

approach to the study as an appreciation that no qualitative research is value-free

(Freshwater, 2007). Consequently, thinking about ethics, sampling, data collection,

analysis and sharing the work with others is a critically active, process-conscious action.

As Luttrell (2010, p.4) notes, choices made in the research endeavour are a matter of trade-offs and shape the 'nitty-gritty in the research process'.

A reflective journal was kept throughout the study, questioning the three aspects of research practice identified by Schwandt (2001). Sample reflexive entries are included in Appendix 4 page 295 and accompany this study to make available to the reader the researcher's decision-making process. This helps to set the context of the researcher's world to locate their perspective as 'integral conductor' of the research process (Lincoln & Guba, 2000, p.210), acknowledge how they conceptualise and interpreted data alongside their described prior experiences and knowledge (Lincoln & Guba, 2000). To this end the next section which provides this context is presented in the first person to give voice to this perspective.

3.12.1 Situating the Researcher in the Research – Engaging in a Reflexive Approach

I have always been interested in human interaction with the social world. As a school student this was explored through art, drama and dance as a form of transformative theatre, studying and performing contemporary work that addressed social inequalities (local playwrights, such as Jim Cartwright, who were described as social realists were part of my curriculum). As part of an A-level syllabus I first encountered the work of Berger and Luckmann (1967) when researching a piece by David Hare. This early reading was transformational to my outlook, political views and personal values.

Arguably my interest in performance and its potential to be transformational (which I experienced personally) and my own epistemological orientation to social constructionism, power and personal agency has shaped many aspects of my life and their presence can be seen in this work. My interest in art is reflected in my choice of using freehand drawings to illustrate the theoretical developments in this study.

I have worked as a nurse in hospital acute care settings, eventually managing a clinical surgical ward where some social and cultural practices were bound in stereotypical dynamics and hierarchies amongst professional groups. Alongside this clinical trajectory I also worked as a clinical educator, with a range of professional groups, exploring collaborative approaches to service reviews. Interest in the social dynamics of teams led to work in a research team that explored pre-registration interprofessional education (Combined Interprofessional Learning Unit, CUILU). Here I first came across grounded theory research strategies and as an educator/researcher I applied social and psychological theories to practice-based healthcare education, designing, delivering and evaluating a range of educational interventions that explored the emergent field of interprofessional education (CUILU, 2006; Walsh, Gordon, Marshall, Wilson & Hunt, 2005; Gordon, Walsh, Marshall, Wilson & Hunt, 2004). I have since been working in a higher education institution contributing to the design, delivery and evaluation of interprofessional education and provided post-graduate courses in interprofessional education for educators. A masters-level dissertation completed in 2009 explored pre-registration nurses and medical student experiences

of simulation (Walsh, 2009), which provided a trajectory for a professional doctorate to which this project contributes. In this work, I applied grounded theory strategies and developed an emergent theory (limited by the parameters of the dissertation) that used a dramatic exposition of the theatre practices of Bertolt Brecht to healthcare simulation with undergraduate learners.

Clearly the place of performance and simulation in relation to social practices can be traced through my world views and educational practices. I view team simulations as providing a place where creativity and transformative collaborative working potentially intersect. I am also aware that facilitating either interprofessional learning or team simulations are challenging experiences as an educator and was interested to explore other educators' experiences in providing team-orientated simulation.

3.13 SUMMARY

This chapter has provided an orientation of the ontological, epistemological and methodological approaches in this study, utilising Crotty's framework, including a rationale for using a constructionist grounded theory approach. Ethical considerations, a full description of the study design and methods used, including data collection and analysis have been provided alongside details of the research setting, followed by a reflexive account to accompany the rationale. This aids the reader in positioning the researcher within the study. The next chapter introduces both the participants and the

use of tropes: metaphor and analogy, to contextualise the categories and core

category of the study that contribute to the substantive theory of *Putting on a Show.*

4 INTRODUCTION TO THE FINDINGS

Certainly, what I find for people that haven't done simulation before but are quite

extrovert they enjoy it, it's like being on stage

Matt

This chapter begins by introducing the participants and foregrounds the findings of the study, represented as a conceptual framework *Putting on a Show*. The employment of metaphor is used as a vehicle to communicate the analysis of complex concepts and to help orientate the reader to the findings. The conceptual framework *Putting on a Show* acts as both an extended metaphor and analogy using associated language from the performance arts. The salience of the metaphor and analogy are explained to illustrate its resonance between participants and the researcher, being grounded in everyday language and thoughts of those involved in simulation. A summary of the conceptual framework is presented and is further elaborated in subsequent chapters to present it in greater detail. A glossary of terms is available (Appendix 5 page 305) to aid the reader in accessing the findings.

4.1 INTRODUCING THE PARTICIPANTS

This introduction provides context to the participant previous experiences and backgrounds related to the phenomenon of interest. This information was elicited at the start of each interview to explore the types of simulation they provided,

referencing a taxonomy of simulation types (Alinier, 2007). This typology was used in the initial interviews to sense check that participants and the researcher were considering simulation in the same way to describe types of simulation, such as low, medium or high fidelity. This typology was further refined as it became clearer that the participants were also describing their simulations in terms of conceptual, physical and emotional/experiential fidelity (Dieckmann, Gaba & Rall, 2007; Rudolph, Simon & Raemer, 2007). Profiles presented in Appendix 2 page 291 provide an overview of each educator, as each were asked to trace their development as a simulation educator.

4.1.1 CURRENT ROLES IN PROVIDING SIMULATION-BASED EDUCATION

All participants provided other types of clinically focused education alongside simulation.

Greg, a Nurse by professional background, was the only provider of simulation in higher education, using clinical skills suites in his institution for post-registration education in human factors and patient safety education. He also supports an educational module in simulation methods. Greg is involved in pre-registration learning simulation and had previously worked in a hospital-based clinical skills centre and delivered and co-ordinated postgraduate simulation to staff at the hospital trust.

Ross and Sarah were both Doctors by professional background, working in different organisations and were undertaking a year's regional simulation fellowship as part of

their postgraduate development. As part of their education they had opted to explore simulation to enhance the learning for the workplace. Ross and Sarah both talked about *in situ* simulation in their interviews but had previously experienced simulation during their registrar specialty training and worked as instructors on courses such as the Advanced Life Support course (Resuscitation Council, 2000) that uses simulation-based methods.

Ross was exploring how highly complex low-frequency emergencies could be rehearsed through simulation as ways of exposing medical registrars in training to elements of their curriculum previously not explored via simulation.

Sarah was studying how simulation could enhance reviews of Serious Untoward Incidents, using *in situ* simulation to re-run the event to surface new review data.

Ross and Sarah were both studying for a Postgraduate Certificate in Medical Education, as part of their simulation fellowship year.

Matt and Ben were both Nurses, working as Clinical Educators at different organisations. Some of the simulation education they delivered occurred *in situ*, but mostly happened in a clinical skills training department environment. Matt provided simulation for medical staff undertaking speciality training as part of their curriculum and provided simulations to rehearse new clinical protocols with staff groups for the hospital trust. This always required other members of the healthcare team to be included in the simulation. Matt was studying for a Masters in Healthcare Education

that included modules about interprofessional education theory and simulation methods.

Ben had a dual role as a Clinical Educator and Advanced Nurse Practitioner within a highly specialised service where both routine and highly complex but low frequency patient issues necessitated the use of simulation for clinical rehearsal in the service. Ben had recently studied a simulation module as part of his post-graduate education.

Sally, a Consultant Doctor, was a training programme director for speciality training in a large Teaching Hospital NHS Trust. She had previously worked in a number of regional simulation centres as part of her career development. Sally coordinated speciality training and ran specific simulation-based courses. Regionally and nationally she was involved in curriculum standard setting and the delivery of simulation within her speciality. Sally also ran numerous low fidelity *in situ* simulations in the workplace.

Margaret, a Consultant Doctor, described developing her skills over time, rather than studying any preparational programme, having a regional role in training schemes for medical post-registration trainees; Margaret is a programme director for speciality training in a large Teaching Hospital NHS Trust and, like Sally, coordinates both simulation post-registration trainees and *in situ* simulation for staff from more than two professional groups in clinical areas.

4.2   OVERVIEW OF THE CONCEPTUAL FRAMEWORK

References to theatre and performance strategies are used in this study. These are included in the findings in four categories and the core category. These create the structure of the following findings chapters (see below) and are illustrated in Figure 6.

Chapter 5: Preparing the Performance. This category considers aspects of participants' experiences that influence the simulation and has three sub-categories: working with the backdrop; creating the plot and writing the script.

Chapter 6: Rehearsing the Performance. This category includes participants' accounts of delivering a simulation event and has three sub-categories: staging the performance, managing the cast and exploiting the subtext.

Chapter 7: Reviewing the Performance. This category describes aspects of the participants' accounts concerning the simulation debrief and has three sub-categories: unpicking the action, capturing the learning and debriefing with, for and about.

Chapter 8: Recognising Default Views. This category presents the differing views of participants through the simulation delivery and goals and has two sub-categories: ways of curating default views and holding a default view.

Chapter 9: The Simulation Dramaturg. This chapter presents the core category and explains how an *interprofessional gaze* contributes to a unifying role that helps to articulate how educators can provide simulation for more than one professional group. The core category is an overarching integration of the categories and provides the

theoretical explanation of the interpretation of the data generated in the study. These

categories and core category are fully explored in the following chapters.
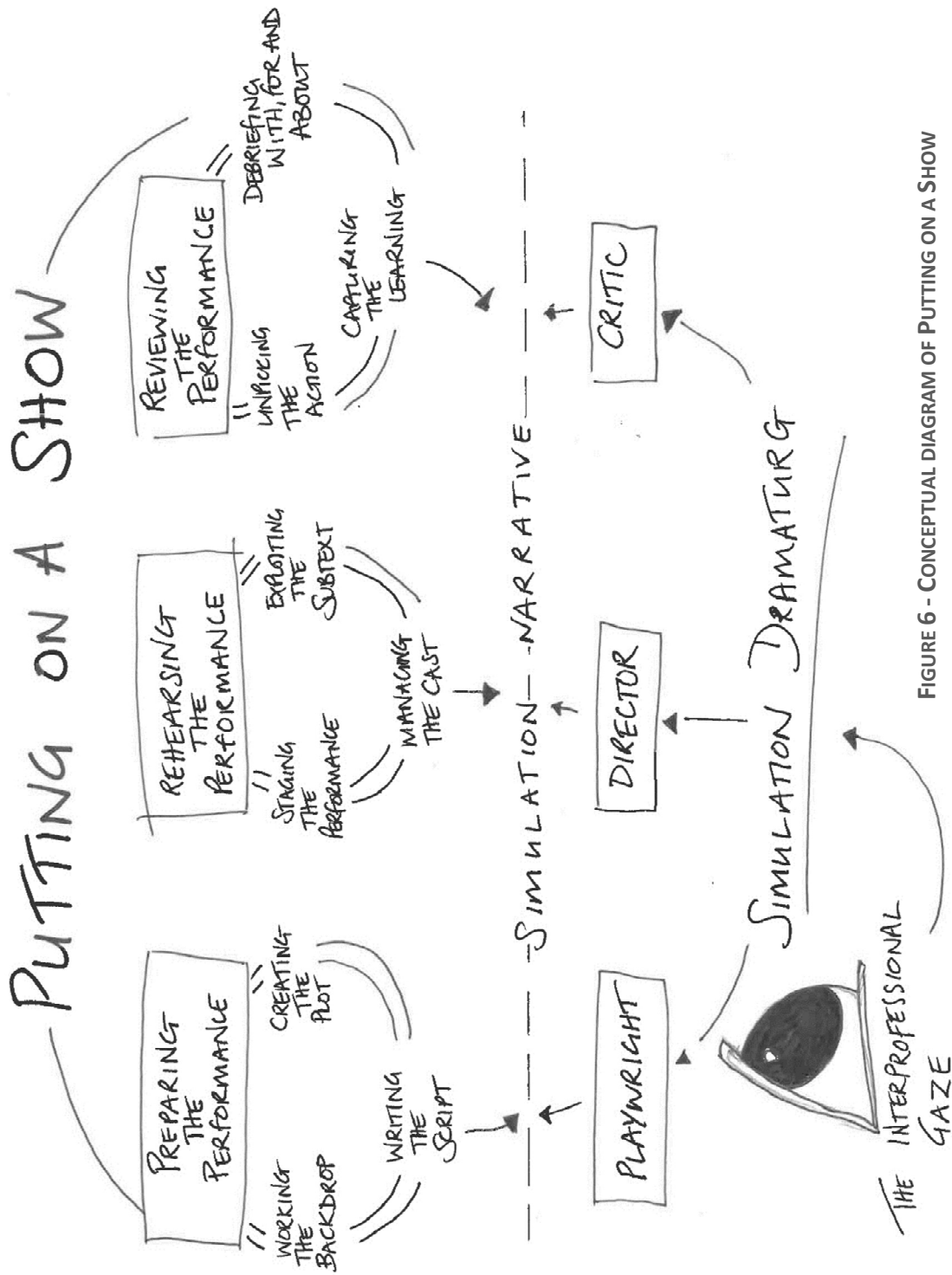
FIGURE 6 – CONCEPTUAL DIAGRAM OF PUTTING ON A SHOW

5 USE OF METAPHOR IN THE CONSTRUCTION OF CONCEPTUAL FRAMEWORKS

Metaphor is not simply an ornamental aspect of language, but a fundamental scheme by which people conceptualise the world and their own activities.

(Gibbs, 2008, p.3)

The use of metaphor and analogy frequently featured in the participant accounts and these tropes became a central feature of the conceptual framework that describes the study findings. Charmaz (2014) advocates that writing up the study helps to shape how findings are effectively communicated to others. As an iterative process, the writing up of grounded theory can present the researcher with challenges in how to communicate in a linear fashion concepts that are interrealated, when considered as a whole. Through writing process it was deemed important to introduce the employment of metaphor in this study to help orientate the reader to the subsequent findings chapters. In attempting to address this, a theoretical consideration of what metaphors provided in language and understanding is provided here.

Metaphors are viewed as essential elements of everyday life, helping how we conceptualise the world (Reddy & Ortony, 1993; Oxford English Dictionary, 2008). A metaphor serves to map meaning and aid conceptualisation of one mental domain in

terms of another dissimilar domain (Lakoff, 1993). The metaphor works by using a

phenomenon unlike the phenomenon of interest, to describe and explain it.

To understand the conceptual metaphor 'simulation as performance' used in this study,

an example provided by Lakoff (1993) is considered. Lakoff illustrates the meaning

mapping that metaphors provide (see Table 3) to make sense of the conceptual

metaphor, using 'love is a journey' as metaphor, where the target domain (the lovers)

relates to the source domain (a journey).

Table 3 Metaphor Correspondence

TARGET DOMAIN	SOURCE DOMAIN
The lovers correspond	to travellers
The lovers' relationship corresponds	to the vehicle
The lovers' goals correspond	to their common destination in the journey
Difficulties in the relationship correspond	to impediments to travel

(Lakoff 1993, p.207)

Metaphors are developed through highly contextualised cultural experiences and interactions with both social and physical worlds (Gibbs, 2008). How closely individuals share the concept domains represented within a metaphor is clearly significant in making the metaphor relevant in exploring meaning (Semino, Heywood & Short, 2004). A shared interpretation for the metaphor is therefore required for an effective exchange between people and is often culturally bound.

Conceptual metaphors seen as inherent in thought processes contribute to our understanding and communication of abstract complex expressions (Lakoff, 1993). The conceptual metaphor, that maps across one domain to another, therefore 'generates ontological (meaning) correspondence' (Lakoff, 1993, p.5) between one concept to another. This subsequently allows for knowledge-based mapping: or

epistemic correspondence to occur (Schaffner, 2004). The conceptual metaphor

quickly communicates a shared understanding and can therefore powerfully affect

how we think, act and speak (Sontag, 1978).

As described above, metaphor can use one domain of experience to facilitate

understanding of another. Successful employment of the metaphor in grounded

theory relies on the participants voice being present in the inductive processes. This is

also suggestive of theory co-construction occurring between the participants and

researcher and does not involve forcing the metaphor onto the data (Charmaz, 2014).

This is reflected within this study as the conceptual metaphor of 'Putting on a Show' is

also a partial representation of the participants' descriptions of their experience also

acting as part-analogy with a multiplicity of meaning.

An analogy describes an explicit correspondence between domains (Gentner, 1983).

Within simulation and theatre there is *performance*, hence detailing a parallel

connectivity as explicit features of both domains. Both analogy and metaphor enable

connectivity through language, as *Putting on a Show* is analogous with running a

simulation. This strengthened the shared understanding between participant and

researcher. In early interviews participants (Greg, Ross, Sarah and Matt) used terms

relating to performance arts and these were recorded as tentative categories (see

Table 4). The idea of simulation as performance and their role within a theatrical

production was presented to later participants (Ben, Sally, Margaret). They validated

the multiple mappings between these two domains (Faucommier & Turner, 2008)

supporting conceptual integration of both analogy and metaphor in this study.

Table 4 Metaphors and analogy used in the study

Metaphor/Analogy	Data	Participant
Metaphor	shining a light on	Greg
Metaphor	it's a backdrop	Greg
Analogy/metaphor	staging/ like staging it	Ross
Analogy/metaphor	in performance	Matt, Greg, Sarah, Margaret
Analogy/metaphor	capturing the action	Margaret
Metaphor	stage left	Margaret
Analogy	coming on	Ben
Metaphor	playing a role	Ross
Metaphor	I'm like a director	Margaret
Metaphor	I'm stage managing	Sally
Metaphor	I'm like a critic	Sally

The concept of the dramaturg described in the core category in this study is also drawn from theatrical practices and should not be conflated with sociological dramaturgy (Goffman, 1978). The dramaturg represents an individual who is engaged in every aspect of theatrical work that results in a production that is subsequently performed by the cast. Introducing the term here helps to locate the phrase within the theatrical paradigm.

> 'Often the dramaturg for a production takes responsibility for the programme, a task deemed central to educating the public about the play and its directorial concept. In this way the dramaturg is part of an inspirational team that includes the director, designer and actors and is a bridging mechanism to the audience.'
>
> (Luckhurst, 2006, p. 9)

5.1 SUMMARY

This chapter introduces the findings of the study and includes the use of tropes in relation to *Putting on a Show*. The origins of conceptual metaphor and analogy are grounded in the participants' accounts. The combination of the literal sense of the word *performing*, helps to orientate the reader to the findings in the following chapters. The conceptual framework is generated through analysis of the interview data. The framework contains four categories and one core category, represented diagrammatically previously in Figure 6. Considered in the next chapters are the four categories with their sub-categories, each as a chapter, with the core chapter The Simulation Dramaturg presented last.

6 PREPARING THE PERFORMANCE

How can we teach about this, how can we learn about this, how can we make our staff better understand this? It's poorly understood and the ways that we try to learn about this clearly aren't working…this being a clinical topic that requires not just knowledge but skills, specific technical skills but also non-technical skills around teamwork which you can't just get from reading guidelines.

Ross

6.1 INTRODUCTION TO THE CHAPTER

The category *Preparing the Performance* consists of three sub-categories: working with the backdrop, writing the script and creating the plot as shown in Figure 7. Simulation-based education can be laborious and a resource-intensive activity requiring many practical considerations and when preparing simulation, educators are creating content with purpose and focus. The simulation runs within a set structure in which a performance is played out, like a playwright who creates a piece of work for others to inhabit and in turn re-interpret through performance. Prior to delivery, participants in this study, when preparing their simulations considered curriculum goals, organisation and professional structures alongside their attempts to provide simulation they deemed to be effective.

The first sub-category *Working with the Backdrop* refers to the context of the

simulation event and how the participants work with the conditions and drivers that

determine or shape the backdrop to the scenarios they plan. The second sub-category

Writing the Script captures the outcomes of these influences when devising and

creating a simulation. The third sub-category *Creating the Plot* addresses the story

within the simulation blueprint and how the participants expect this to play out when

the simulation is performed.

These three sub-categories provide the section headings to present the findings

related to this category. The properties and dimensions of this category are illustrated

in Figure 7

FIGURE 7 - PREPARING THE PERFORMANCE

6.2   WORKING WITH THE BACKDROP

The scenario we ran for *in situ* simulation, so I just use that as the backdrop at the time
     when they got there, the debrief was, yeah it was it was a multi-professional team.

Greg

This section presents the study findings regarding the work participants undertook in

relation to the settings and conditions they deemed necessary to negotiate prior to

running the simulation, Greg referred to this as 'the backdrop'. The participants

describe perspectives or issues that influence how they can set the scene. In theatrical

terms a backdrop serves as part of the scenery, used to provide perspective and hold

the context of the performance for the audience. Participants discussed ensuring that

simulation works in a way they consider appropriate, by working within or in some way

manipulating, the context (backdrop). How simulation is devised and created is

influenced using these 'backdrop' issues. These were reported by the participants to

include: policy direction; acceptability of simulation as an appropriate alternative to

existing ways of learning; funding arrangements and by the makeup of the various

groups accessing the simulation.

The sub-category also refers to *work* that participants undertook prior to the event in

readiness for the simulation to run. All participants promote the use of simulation as a

way of addressing organisational directives to improve safer patient care through effective teamwork.

> …the breaking point I suppose was a patient who died as a result of a Serious Untoward Incident and it was a big failure in teamwork. They felt that one of the reasons that this needed to change (use of simulation) in hospitals was that people had a chance to rehearse when things go wrong basically.
>
> Greg

Simulations were commonly used to review and enhance local patient safety initiatives and wider policy agendas. This included working with Sepsis Six bundles (Dellinger et al., 2013), haemorrhage treatment protocols (Hunt, Allard, Keeling, Norfolk, Stanworth & Pendry, 2015) or obstetric emergencies (Merién, van de Ven, Mol, Houterman & Oei, 2010).

The amount of effort required by participants to ensure their organisations included simulation as a feature of workplace learning varied. For example, employing simulation to improve team training was an explicit requirement where Greg had worked. The simulations he developed included team approaches as an implicit goal. Sally and Margaret used simulation to test out processes and report back to the hospital governance board. They required less work effort to include simulation within their workplace, because their organisational structures had begun to recognise the contribution simulation made.

I think the other thing is the senior staff and our managers will often come to us and say, 'We've noticed we've got a bit of a theme' …is that something you can incorporate into the training or do you mention this in training or do you think you could do that a bit more...'

Margaret

Similarly, in Ben's organisation simulation was frequently used throughout the working week to continually enhance and review practice and subsequently update standard operating procedures.

Then we had to pull something much simpler in and so there's a constant cycle, you know one of these cycles of tweak and test and tweak and test until you find something which works.

Ben

These drills allow staff to rehearse and refine service delivery. Ben often used case reviews of clinical events as the context or the backdrop for such drills. They were a feature of his workplace and as such the culture of the organisation valued simulation events as an important feature of the working week. Whilst Ben and Greg used previous cases as the context of the simulation, Sarah extended this approach and incorporated Serious Untoward Incident (SUI) reviews to provide additional learning to support organisational governance processes. Referring to her Pictor map she states:

So I have a problem here going off towards preparation, so when we do this it is tailored towards a specific case and it's the important factors about the case. What were the original learning outcomes with the SUI? So that focusses on developing

some learning objectives for the case and then drafting and expected scenario

progression based on that.

Sarah

Sarah's quote above shows how she is both testing and demonstrating the utility of

simulation as a review methodology, exploring what else simulation might reveal

through learner performance and debrief.

Participants also worked to explicitly embed simulation into the organisational culture

of their workplaces. This work effort aimed to create a requirement that assured the

purpose and place of simulation as a technique to improve patient safety (Sally,

Margaret, Matt, Greg and Ross).

Participants reported various organisational contexts that contribute to the backdrop

and varying degrees of effort to embed simulation into routine educational

infrastructures. Ben described the least effort when working with strong

organisational drivers that provided a backdrop, simulations ran every week and he

described the workplace as being grounded in a 'just culture' (Frankel, Leonard &

Denham, 2006). This is where discussing errors is encouraged within an organisational

philosophy that enables professionals to work and learn together. Ben used a negative

example to contrast his own organisational backdrop of team-based simulation against

other imagined practices, viewing his workplace as atypically 'just'.

…whereas the culture at (Ben's workplace) is all about a team that trains together

knows each other. I imagine that in a (different) hospital environment you could say

'right I'm going to do a simulation for the nurses' or something and get a doctor in to
help or 'I'm going to do a simulation for the doctors can I have a nurse to play along'
sort of thing. My experience at (workplace) is that the whole premise of (service
provision) is based on a team.'

Ben

The focus of Ben's simulations addressed similar issues to those of other participants:

organisational, professional and educational drivers, but as Ben's organisational

context provides considerable support, the effort of the work within this context is

different as simulation is used every day. Technical performance is rehearsed as a

team and any individual learning needs are subsequently explored outside the team

simulation. In Ben's organisation all education team members participated, and as no

one single profession leads the training service, every simulation was team-based and

reportedly equitable for all learners.

…it's all about a team that trains together and knows each other…You have to treat
education that way, you don't sort of bring the doctors in and say 'we're going to teach
you how to use this bit of kit' you have to bring the nurses the team is treated as the
team.

Ben

This, however, was not the same for all participants. Unlike Ben, Ross in his year as a

simulation fellow, had to work hard to embed an *in situ* simulation as a replacement

for some existing mandated teaching content. Resistance came from his senior

medical colleagues who were more confident that traditional didactic teaching

methods ensured that mandated content was delivered, to satisfy regulatory or organisational requirements.

> A lot of people would like to have a system where you have your block of delivered mandatory lectures and that makes people safe and competent in doing all the tasks in isolation instead of promoting a team environment and teaching and practising non-technical skills.
>
> Ross

Just as the organisational context was an issue for participants, the availability of different professional groups to join in simulation also required significant work. This arose when certain professional groups were not available to participate in team-orientated simulations. Often, in these cases participants described themselves as making pragmatic choices to ensure that professional groups required as part of the simulation were available, so the event could happen. Greg identifies an issue that everyone except Ben appreciated, a structural issue of access to simulation for nurses:

> Certainly in terms of, with doctors and nurses, as a backdrop the funding for their education often comes from two different parts we're often finding that makes it very difficult.
>
> Greg

Matt, Greg, Ross, Sally and Margaret's backdrop work was all shaped by uni-curricula funding structures for specialty training for medical learners. Sally and Margaret, both directors of medical training described *piggy-backing* (Margaret) or *subverting* (Sally)

funding streams. The different funding arrangements for post-registration education

for single professions were backdrop issues that they worked within, or manipulated,

to widen access for other professional groups to benefit. This was to ensure

simulation could be delivered across professions in a way they felt was right, using

trainee funding to provide *in situ* and hospital-based simulation for multi-professional

staff groups. Sally and Margaret used their leadership positions as medical consultants

to arrange both registered and un-registered nursing ward staff to have rostered

opportunities for simulation. They talked about this as work to address inequity of

access to simulation, as often ward-based nurses are not enabled to attend 'due to

pressures of the job' (Sally, Margaret, Greg, Matt and Sarah). However, Sarah tried to

address the inequity in a different way describing how she needs little effort to engage

medics, but works opportunistically to gain access to nursing staff.

> So we then grab whoever is available, so a few times we have put it at the end of
> mandatory training for the nurses so there are a group of nurses already there…the
> doctors generally are quite happy to spend a bit of time to come and take part in it.

> Sarah

To ensure the simulation works, Sarah deemed it necessary to manipulate an existing

activity to have nurses available for simulation. The nursing training day does not

include simulation as a part of mandatory work-based learning, but simulation is

added as an extra unplanned feature to their day. This was in contrast to the flexibility

and freedom that funded provision provides as the medical learners have regular

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protected time for study as part of their working contract. Sarah viewed her approach

as pragmatic in resolving how her simulation requirements would be achieved. It

seemed Sally and Margaret's influence on the educational workplace culture was more

strategic in nature as they were able to manipulate work patterns to free up time for

nurses to access the simulations. Where the culture of organisations was described by

participants as being equal, minimal work was required to be undertaken to enable

multiprofessional access (Ben). Also for some participants, minimal work was

undertaken where inequality in access existed, irrespective of whether this was

perceived or not (Ross). Others (Sally, Margaret and Matt) made efforts to address

and manipulate within the organisational and funding structures. Some participants

felt *embarrassed* (Sally and Margaret) or *annoyed* (Matt and Greg) about the unequal

access to simulation.

The effort, type and focus of working the backdrop related to organisational and

professional contexts, shaped through a personal perspective of what was deemed

appropriate. Within this context participants were making decisions in relation to how

simulation might mirror practice. This backdrop consisting of the features described

above, corresponds to how the backdrop within a play contributes to setting the scene

or background to a character. Importantly the work done to manage the scene is held

within the simulation scripts. The next section considers the relationship of the

backdrop to the script and how the context and influences described above appear to

inform how scripts are written.

6.3   WRITING THE SCRIPT

This sub-category presents the study findings regarding the work participants

undertook in relation to W*riting the Script.* In theatrical terms the script is an

interpretation, often of literary works, that include a set of instructions to the cast and

crew for staging theatrical performances (Nannicelli, 2011). Scripts are also referred to

in simulation, detailing the technical, environmental, educational and organisational

features. When devising simulations participants created a script that provided a

sequence and addressed factors they felt important as to how the simulation might

run. The script here is an interpretation of clinical practice and takes account of

structural features of simulation, for example where to start and stop. Scripts were

shaped around curriculum goals and anticipated action with related technical

equipment requirements. The script also details environmental considerations that

were often determined by the resources available. All participants wanted this to be

engaging both technically and psychologically to achieve a sense of authenticity. This

authenticity supports learners to suspend disbelief and engage in the rehearsal of

clinical life in a way the participants saw as beneficial to achieving their goals. Firstly,

attention was paid to the practical features that needed to be considered, which Matt

called 'pre-event considerations' also referred to as 'pre-brief'. These linked to

available time and what was required in the pre-brief to create a safe environment for

learners.

It's allowing them to have time to play with it, have a look at it and break down those barriers if they've not done much 'SIM' before.

Matt

Making time to explore technical equipment was seen to help orientate the learners to enable transfer of learning through simulation to practice. This barrier is described in the literature as simulation artefact (Rystedt & Sjöblom, 2012). Efforts to reduce simulation artefact are concerned with decreasing the impact that being in simulation has on the learner's clinical performance. When described, participants used several ways to address artefact including; selection of familiar technical equipment; paperwork; staff roles and familiarisation with simulation as a learning modality.

In this study, medical learners were reported to require less pre-briefing compared to any other professional group. This could be due to the overall levels of access they have to simulation as part of their learning (Sally, Margaret, Ross, Matt and Greg). Interestingly the impact of less access to simulation experienced by some learner groups wasn't considered an impact factor when describing what might act as an artefact. Instead participants reported that a lack of exposure to simulation for nurses, paramedics, midwives, and operating department practitioners needed to be managed. The under exposure of these groups to simulation was viewed negatively, as it created an unintended outcome of simulation. This was seen to get in the way of effective simulation reducing the potential to authentically replicate features of clinical practice. Matt, Greg, Sally, Margaret and Ross reported this issue had occurred for nurse

learners. Both Ross and Sarah describe this as provoking a qualitatively different outcome for simulation for these learners.

> One of the things that I have encountered again and again. Nursing staff in simulation feel, a lot of people but particularly nursing staff, feel judged and criticised …(I) don't know whether that is a reflection in the differences in their postgraduate education but it makes a big difference and it made it a big difference here.
>
> Ross

Whilst these participants have a genuine concern about the nurse learner's experience of simulation, the efforts to overcome simulation artefact around this lack of familiarity for nurse learners appeared to not warrant additional effort. This suggests that a qualitatively different experience for learners other than medics was tolerated by educators in this study. Sarah describes 'grabbing whoever' and 'tagging' onto existing sessions. This suggests that she mandates participation of nurses, rather than through invitation or formal co-ordination, which is indicative of a lack of preparation for these learners. However, Sally and Margaret manage access to training at an organisational level by virtue of their seniority, which enabled them to roster learners. Ross's remark above indicates his awareness, but he did not talk of any additional effort to address the impact that a lack of exposure might have in creating an accessible script for nurse learners in his simulations. Ben was the only participant who had not reported this problem of simulation perhaps as in Ben's organisation the whole department participates with equal access to such learning opportunities. This

has an inevitable impact on simulation artefact as participant accounts, excluding Ben's, illustrate that whilst organisational issues were acknowledged as barriers, the variable experience and related artefact was something they tolerated and worked within. This idea is further explored in Chapter 8 where the reason behind a noted passive acceptance of unequal access is further explored as a feature of a pervasive dominant default view.

Once the pre-event considerations have been planned and the script is further developed, participants have some idea of what they want to simulate as this quote from Sarah describes:

> So I do a timeline, so that it happened exactly with the patient case and I pick a point on the timeline that we will run the simulation from and I draft what is anticipated …. I almost write out a script of what we would expect would happen so that we can prepare equipment, props staffing and almost who I want to be on the end of the phone.
>
> Sarah

Sarah describes anticipating elements in the encounter as she interprets the timeline of a patient case. Sarah clearly has a scene in mind that involves what she and her colleagues are expecting to happen. This interpretation sequences a plan for when, how and which learners join in, how props are used and this shapes the overall structure. Sarah's interpretation is also setting the focus for the simulation; learners will attend to activities in the scene selected for inclusion and other activities are

discounted. All participants reported selecting topics in similar ways, namely having some kind of start and end-points and entrances and exits for learners. Greg described a simulation to jointly rehearse technical skills following an algorithm used in clinical situations. He scripts the scenes sequentially and his interpretation requires the script to start and finish at certain points to capture the action he anticipates will develop the learners' understanding. The script he describes is designed to feature the actions of both medics and nurses, so the performance can be observed and explored by them together in debrief.

> …nurses are normally in the scenario first and they usually run like a real-life situation, the doctors are often elsewhere. They will have got a diagnosis and a really good understanding of what's going on in their own heads and then the doctors come in
>
> Greg

Margaret explained how her scripts are shaped by her expectations. These expectations set key features in the script she anticipates will occur. These expectations are drawn from running the same simulations in the past. Whilst Margaret has some of the script written she is also prepared to be flexible in attending to what might occur. The space between what she anticipates and what might occur is motivating for her and viewed as an opportunity for her own development as an educator. This response of being fluid suggests that elements of the script emerge from the performance of the learners.

> Largely from experience and having watched the similar scenario acted out over time
> really and so you build up an idea and that for me is part of what keeps me interested
> in doing it over a long period of time, it's different every time but you can also learn
> things.
>
> Margaret

Considering that medical education often funded simulation provision, unsurprisingly medical curriculum outcomes predetermined the focus for simulations. These simulations (Matt, Sarah, Ross, Sally and Margaret) frequently included team working with an emphasis on medical learners demonstrating their leadership capacity. This necessitated that simulations included members of the wider healthcare team to meet these curriculum goals. Matt, Greg, Sarah, Margaret and Sally described the ways in which this was achieved and reported devising scripts where they 'take advantage of other professionals'.

> The (named) courses have always been developed with the needs of the medical
> trainees in mind but with one or two nurse facilitators who then end up propping up
> our training, bring a huge amount of value to the debrief particularly for the training
> days when we're training people to step up to be registrars, getting the nurses' input
> on the way they've managed a situation is invaluable but it does feel as though we're
> exploiting their good nature.
>
> Sally

Sally's tone in the interview suggested she felt awkward about how nurse educator colleagues were not equally involved. Whilst not attempting to defend this, her approach was to rationalise that what she considered the exploitative use of nurse

educator input was warranted to meet uniprofessional curriculum goals. There seemed to be a tension between the exploitative inclusions of nursing staff weighed against the benefit of meeting curriculum goals. Providing this simulation was deemed more important than the impact caused by differing levels of authentic engagement of other professionals. Here, namely 'the nurse' appears as a feature of the script and this does not suggest an equal status between nursing and medical learners as a team simulation might promise. Sally reported she was 'taking advantage' of nurses through their inclusion. Their inclusion was in relation to another professional rather than having an equal presence, independence and significance within the simulation script. In this interpretation of clinical practice, this script begins to shape a lead role (medic) and a supporting cast (nurse) when providing team simulation.

Matt was part of the faculty that provides simulation and as a nurse he both facilitated and acted in the simulation. He reported that there was an accepted practice in using a nurse educator as representative of nursing adopting a homogenous function.

> …they (medics) assume that the nurses will know the answer to things that are outside their specialty so if you get a respiratory patient on a ward that's got a cardiac problem the nurses probably aren't going to know the answer to that and it's allowing them (medics) to understand that.
>
> Matt

Matt is voicing concerns about a homogenous representation of nursing as a type, consequently he questions the authenticity of the simulation for the learners. He

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viewed this as a false representation of how nurses practise. He appeared concerned about nurse faculty members being scripted as a 'representations' or stereotypes of nurses, creating a typecast or a stock character with limited depth. Sally in the earlier quote also refers to this as she states, 'one or two nurse facilitators who then end up propping up our training'. The participants are alluding to faculty taking on what can be described as stock characters, roles are therefore enacted impacting on the relational dynamics between the professional groups. The nurse becomes part of the simulation experience rather than being a learner with an equal participatory status. This difference has the potential to negatively affect the learning within the event. Here 'the nurse' is part of the structure of the simulation and acts to support other learners rather than share the focus of the learning. This raises the question of how representational nurses are in the simulation and the impact of protagonists adopting representational roles in creating authentic learning experiences. Participants who were medics were apologetic and slightly embarrassed when talking about this issue (Sally and Margaret), others didn't seem to have considered or noticed potential issues inherent with this approach (Ross and Sarah), contrasted against participants from a nursing background who expressed irritation and frustration at the situation (Greg and Matt).

Whilst in their examples above, participants' accounts describe occurrences where they provide team simulations focussed on one professional group, they concurrently talked about their efforts to physically, technically and psychologically represent

clinical life to create an immersive experience they deemed accurate. Within the literature efforts to enhance the immersive experience simulation offers is referred to in terms of fidelity (Rystedt & Sjöblom, 2012). When this immersion is achieved, the opportunity to transfer learning from the simulated environment to similar real situations is seen to be made possible. The more sophisticated manikins, equipment and resources used in 'real life' are required as you move up the fidelity gradient. Often the more complex scenarios use high fidelity simulations and these require a lot of time to prepare and run. Participants in this study worked in a range of environments and reported different efforts in the pursuit of fidelity versus other pragmatic choices. These included frequency of provision, which impacted on the time to prepare, focus of clinical topic and available resources. In this study, the immediacy and availability of providing simulation was valued over the pursuit of a more detailed attempt to achieve all elements of physical and psychological fidelity, possibly as all participants were not situated in a regional centre that provides a ready-made high fidelity environment.

> I like low fidelity very much so, I don't particularly like technology and I'm also not convinced it brings that much to the situation when a huge amount of what comes out in our debriefs are all about human factors and managing the team.
>
> Sally

For example, Sally reported using readily accessible kit, such as a smart phone application, during impromptu *in situ* simulations to provide 'clinical monitoring'

feedback using a low fidelity manikins with minimum programmability to act as a

simulated patient. But importantly, all participants described wanting to ensure

learners would feel engaged with the simulation script as Ben's quote illustrates

below:

> They're quite mixed, it depends on how much time you've got, the clinical aspect of it
> is low fidelity…. they're actually sitting in a wooden box and I think they buy into that
> quite well. The high fidelity aspect is that they're wearing proper …helmets and wired
> into an … intercom system with microphones and I have a sound bank of …noises to
> play them and people coming in over the phone and radio so the communication
> aspect of it is absolutely identical to what would be… so that is high fidelity.
>
> Ben

Ben was satisfied the simulation worked for his learners because despite not being

physically authentic it was psychologically engaging and he used audio recording

appropriate to that setting to enhance the fidelity and build authenticity. Ben's script

concerned managing patient transfers; the wooden box acting as the interior of the

vehicle. Ben couldn't use high-fidelity simulation, rather his focus was on authenticity

between learners. He aimed to reproduce enough of real life to engage his learners.

When creating a script, participants described designing structures within a simulation

that would allow the learners to behaviourally perform as they would in real life and

Matt used this concept as an anchor for his simulations to develop:

> I think when I'm planning anything I tend to put the technical outcomes down first but
> that's probably because of the way I was taught to. I probably want to weigh more on

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the non-technical but I force myself to stick to the technical side as well because the technical almost brings out the non-technical.

Matt

As described above, the first feature of script writing addressed pre-event considerations, creating a plan to orientate, organise and prepare for simulation. Whilst the practical considerations to address psychological safety were discussed, awareness of, or efforts to address the backdrop of organisational or structural influences on the simulation varied.

A second feature of script writing was to create a running order within which the staging guidance, props and roles to be performed were included. These featured detailed decisions regarding tolerances for fidelity so that the experience could be an immersive one for learners. Here the script frames how the performance will run, detailing the potential interaction between learners and their environment. The script helps to convey a running order for the non-technical skills that are performed by the learners. This is important as enacting the technical features in simulation creates space for non-technical interactions with the other learners, as Matt described in his earlier quote, the story within the script comes to life as the simulation is in motion.

The interaction between learners in a simulation often concerns the non-technical or clinical human factors and these are frequently foregrounded when a technical skill is enacted, or a team performance is created. From participant accounts it was also noted that the creation of stock characters from faculty teams was a concern. These

concerns were acknowledged differently in participant accounts regarding exploring

the complexities of team performance.

The final sub-category in this chapter *Creating the Plot,* continues to explore the

influences and conditions that impact on this relationship between technical script and

the anticipated non-technical or human factors within simulation.

6.4 CREATING THE PLOT

Creating the Plot conveys how participants describe the story of the simulation

performance in comparison to the script that details the technical action and

preparatory work. In theatrical terms a script details what happens, whereas the plot

is concerned with how the action happens, or the story inside the script (Gale, Deeney,

Rebellato & Lavery, 2016). The plot emerges through participants devising the

simulations to incorporate technical and structural features to address fidelity as this

shapes human performance. All participants took time to address this to achieve what

they saw as an acceptable level of authenticity and engagement to promote learners

buying into the experience. Some referred to this as 'psychological fidelity'. One

consistent plot noted in this study was that of teamwork. All participants shared the

intention to improve teamwork through the simulation plots they had devised, and

they intended a 'good teamwork' message to be told by the script. Greg below

reported that with the plot of 'working together', he had created in his *in situ*

simulations, it appeared to also communicate department values and also act to

motivate learners to be part of the team:

Simulation gives them a sense of the feeling that the Department is interested in their

development and therefore the Department is striving for safer care, better care and

that feed into their own becoming more enthusiastic, they come to a more

enthusiastic place and the Department continues to thrive.

Greg

When creating the plot participant accounts revealed the time required to consider

and plan the plot or story to make the learning experience 'authentic' for their learners.

The following examples illustrate differing degrees of success where an aspirational

plotline of teamwork is concerned. Participant efforts are often confounded by their

own enterprise as they focussed on the needs of only one profession. Ross created a

large simulation in his department. He took some time in the interview to describe the

rigorous attention he applied in devising an *in situ* simulation. This simulation was part

of a postgraduate medical education curriculum and was of low frequency high-impact

clinical event. Events like this in real life are rare but can have catastrophic outcomes

for patients, thus simulation provides an opportunity to rehearse.

…but I was aware of trying to come up with an idea, design of simulation that would

provide enough exposure to the topic can be interesting enough without making it so

completely complex and one-off that it wasn't going to be reproducible. So that was

about meeting with different members of staff, finding out what topic they felt

uncomfortable about and what they felt they needed to know and then speaking to,

for example blood bank, senior emergency medicine staff approval for running this kind of scenario.

Ross

When planning, Ross consulted various medical team members to maximise the features of the simulation he wanted to achieve. Ross included environmental and structural features relating to medical and blood bank staff to address the authenticity he is focussed on. However, the simulation also included other healthcare professionals such as nurses, healthcare assistants, radiographers and operating department practitioners. The detailed effort he made in engineering the fidelity was related to the target professionals (medics) for whom he had devised the simulation. This effort was substantial when compared to that for the other professionals involved. Ross did not consult other professional groups, so whilst a plotline of teamwork was identified, it involved a well-developed plotline with a specific uniprofessional orientation but an underdeveloped plotline for the other groups described above.

Matt also described his detailed preparation when devising a uniprofessional medical course for pre-hospital and in-hospital acute stroke care that required more than one group to participate. Learners included paramedics, nurses and medics in training from an emergency department. Matt described running this twice, the first time the paramedics evaluated the session poorly and when he addressed issues arising in their feedback, he describes below increased engagement and authenticity for all learners.

> …Yes and try psychologically to put them in a place where they're used to working even though it's artificial for them… We have paramedics so they're not even hospital staff. Are they going to want to have their role reinforced in an alien environment to them?
>
> Matt

Like Ross, Matt runs uniprofessional curriculum courses, but he appears to consider the details for all learners differently and how this can impact on the interaction between all participants. He describes considering how to validate the role of all the professions involved. Matt suggests above that his deliberation created the potential for authentic team relationships that could be enacted in the simulation. As a result he views the effort to consider each profession important to create opportunities for a different story to unfold.

To replicate team performance in providing clinical care the script and plot need to capture the complexity of practice. Ross described this complexity as creating *enough noise*, designed into the script by including specific technical skills that demand team interaction. This plot design enables human performance to occur bringing out non-technical behaviours, allowing the story in simulation to emerge.

> … so you create enough noise it requires leadership and you make it complex enough so it requires more people, so it requires a team. This needed to be in our world in our environment, needed to have everyone involved… I suppose again the noise requires clear communication, you have significant deterioration which requires anticipation, situational awareness, recognition of emergency…

This is clearly a sophisticated skill and both Ross and Matt describe thinking about layering interaction to simulate the complexity of practice. Also, as Ross describes above, capturing this complexity within the plot of clinical practice demonstrates a sensitivity of how the performance of skills and behaviours relates to the performance of teamwork.

> …as an example, we see someone not doing an ABCDE assessment or starting in B… or starting at C and getting to C and getting fixated on one thing, we often repeat ' you need to do this, you need to do this' but we should just tell them, actually there are huge sorts of psychological things going on in just that (single) technical skill, they understand that, but they are just not doing that

> Greg

Greg here highlights his skills when identifying this interdependence. His example illustrates that whilst the script (a structured algorithm of clinical actions) and non-technical skills are conceptualised separately, the relationship between script performance and resultant plot of non-technical performance observed is dynamic, nuanced and complex.

6.5   SUMMARY

In this chapter: *Preparing the Performance*, participants' accounts highlight the settings, conditions and work they undertook prior to the simulation event. This work, whilst similar in process, had a variety of outputs. This chapter highlights three highly

interactive aspects of this work. Firstly, the settings and conditions that frame the simulation, these form a backdrop shaping the simulation, including local and national safety drivers and the policy and organisational drivers to enhance team working to improve patient care. The impact that organisational structures had on supporting access to simulation, enabling authenticity and engagement was also a considerable factor. Participant efforts to work with these issues varied depending upon their role, background and sensitivity to learner need or context.

Secondly, when preparing the performance, participants devise a script. The script is shaped by the backdrop and provides the detail of the technical, physical and structural features of the simulation. Devising the simulation script provided the anticipated structure with dependencies of fidelity, topic, tasks and availability of resources to maximise acceptable tolerances for authenticity. In efforts to recreate practice, engagement of learners in the simulation was essential so that the nontechnical features could be enacted. Although not explicitly stated at the outset, participants were addressing complex issues so that a potential story could emerge, described here as *the plot*.

Finally, the human performance of non-technical or human factors skills feature as an anticipated outcome of the script, acting like a plot within a theatrical script. However the plot only comes to life when the script is performed. Scripts do not explicitly describe performance of specific non-technical skills, but they do include enough detail

concerning fidelity that non-technical or human factors can be authentically and spontaneously performed and subsequently debriefed.

Each sub-category illuminates a degree of variance in the work undertaken to prepare for simulation by these participants. Learning aims to address productive and positive teamwork were common, but participant actions could be seen to sometimes confound their own enterprise by appearing to work against setting up opportunities for collaborative learning. Equally, participants also demonstrated a skilled sensitivity to the needs of different uniprofessional learners. What concerns and influences shape these different approaches is explored in more detail in Chapter 8, where the participant perspective is further conceptualised as their default view.

Once the simulation is prepared, participants are ready to engage the learner in the performance of the simulation. The next chapter *Rehearsing the Performance* will consider participants' reports of facilitating simulation, seen as a rehearsal of practice in a safe place.

7   REHEARSING THE PERFORMANCE

I think there is a beauty in simulation that actually you don't want to over plan it … if
something fundamental comes up about anything then I'm very much of the mind-set
of 'that's what we're going to talk about' because that's what you want to talk about.

Sally

Too often we mistakenly believe the script to lie at the heart of theatre, to be its point
of origin, which it absolutely isn't. Theatre begins and ends with live performance,
everything else is simply reading.

(Field, 2007)

7.1   INTRODUCTION TO THE CHAPTER

Rehearsing the Performance represents the facilitators' accounts of running the

simulation event. It signifies an understanding that the simulation is a rehearsal for an

event the learners would encounter in clinical practice. This category articulates how

participants arrange learning experiences, manage the simulation technically, ascribe

learner roles and consider how additional human factor learning can be drawn out.

Their accounts illustrate how they provide a co-ordinating role and the support and

guidance they provide was considered to resonate with a directorial function (Sally and

Margaret), controlling the simulation and guiding the cast and crew. The category has

three sub-category components: *Staging the Performance; Managing the Cast* and

Exploiting the Subtext. These three sub-categories provide the section headings to

resent the findings related to this category. The properties and dimensions of the

category are represented in Figure 8 below.

FIGURE 8 - REHEARSING THE SHOW

7.2   STAGING THE PERFORMANCE

The sub-category *Staging the Performance* describes participant requirements when

setting up the simulation and relates to the experiential learning approaches that

simulation embodies. Whilst this is being realised, the second and third sub-categories

in this chapter are enabled. In *Staging the Performance*, participants describe

perspectives or issues that influence how they manage the simulation 'on the day',

directly before and as it is performed. In theatrical terms staging refers to all the

necessary details of an anticipated performance, the entrances and exits of the actors, availability of props and devices at the right time in the right place (Gale et al., 2016). Participants facilitate the simulation in ways they deem appropriate by managing or staging the environment. This includes guiding how learners begin to engage with the simulation, which in turn creates a sequence of events that illustrate the progression of the scenario.

Participant accounts illustrate a complex management of issues at the point of running the simulation, the physical environment, staging the scenario within this space and making judgements about allocating roles based on learner characteristics. They manage or stage the physical space, sequence and make directorial decisions around perceived learner needs in a responsive and flexible way. Their decisions are shaped by their own expectations, perceptions of the learners involved and overarching simulation goals.

Participants describe being required to actively manage the simulation, for example the characteristics of the physical space was seen to determine the nature of the simulation provided. The places simulation took place described in this study reflect the majority of environments reported in the literature, namely *in situ* simulation, clinical skills suites, in-hospital simulation centres and regional simulation centres (ASPiH, 2016). Regional centres were mentioned by participants as a place they had delivered and experienced simulation previously (Sally, Margaret, Ross and Sarah) but not discussed in depth in their interviews as they often had not led simulation events

at these venues, but worked alongside other centre faculty staff based permanently in that setting.

Sarah, Ross, Matt, Sally and Margaret all provided examples of *in situ* simulation. The purpose of *in situ* simulation is to enhance the psychological fidelity, to provide existing teams the opportunity to rehearse safely in their own workspace with their own equipment and allowing them to test and review local operating practices. Practitioners' ability to provide simulation was also enhanced through *in situ* delivery, as Margaret describes below, as both the clinical setting and the equipment are readily available during the simulation.

> We'd had some new delivery beds and nobody was quite sure where the CPR handle was to flatten the bed. We do really basic stuff and we have new pumps or new equipment and it's a really good opportunity to show them what's actually happening and disseminate some of that sort of stuff.
>
> Margaret

Whilst *in situ* simulation was really valued participants also described it challenging to run. Sarah discusses how the environment is often difficult to control and that she must carefully script and sequence many of the actions taking into consideration the use of physical props in the scenario, availability of equipment and have faculty staff 'in the wings' available if requested by the learners.

We had to manipulate the scenario in that case …and we got one of our members of

the educational team with that simulation holding that bleep they could go to the

phone and say 'sorry the registrar is not available'.

Sarah

Sarah has a sequence of events as a script, a role for participants to play and whilst not

forcing the learners to make choices, has set the scene in such a way that a

predetermined sequence of events will unfold. Matt, Sally and Margaret describe

other difficulties, often having to cancel the planned simulation as the clinical space is

needed for a real patient admission. However, despite these challenges participants

continued to advocate for this approach because they valued situating the learning in

the 'real world' as Margaret describes below:

…simulation fits in with how they will work in the future.

Margaret

The participants described two approaches when facilitating *in situ* simulation; a

planned event with identified learners and a planned event with unidentified learners

i.e. staff already working within the environment at that time. Both these approaches

required dynamic management existing between the physical spaces, sequencing of

the event and resultant anticipatory facilitation provided to accommodate and

maximise the learning. For example, scenarios were carefully scripted, informed by

previous simulations and often co-ordinated with wider department co-operation.

Ross involves blood bank staff (from another department) to enhance the authenticity

of real-time delays in urgent administration of blood products during his simulation, demonstrating the significant efforts made to stage an event. Sally, Greg, Margaret and Matt provided *in situ* simulations that were planned, but with 'unplanned' learners, and often staged as an emergency. The simulation experience was presented unannounced to existing clinical staff working in that area as Greg describes below:

> The scenario we ran at the district general hospital for *in situ* simulation for cardiac arrest, using the real cardiac arrest team who didn't know they were going to be involved in the simulation
>
> Greg

This dynamic facilitation also extended to more controlled environments such as clinical skill or simulation facilities in hospital settings. Often these environments were reported to be less demanding in a controlled physical environment compared with *in situ* simulations, because study participants could work with a wider faculty of simulation educators in a space they were very familiar with. Here, they could allocate roles amongst faculty educators to stage the simulation, thus controlling more of the action if required, as Margaret highlights below:

> We have somebody outside the room who is regulating people coming in and out to make it more real time, call for the doctor so the doctor isn't just suddenly going to walk in, there has to be a time delay.
>
> Margaret

Participants described engaging with the mediating effects of the physical space, staging the scene, even when many parts of the scenery were absent. Ben's example shows that even when the space isn't 'real' it still influences the point at which the scenario starts. Ben uses a novel physical environment: a wooden box or a cordoned taped-off area of the floor, to re-create a cramped physical space. His learners wear headset communication devices. This physical environment is not real, but the limited operating space for the performance of the scenario confines the movement of the learners and simulates the physical constraints of this working environment. It is whilst 'in' this space that the simulation is staged and this clearly dictates the sequencing of action in the simulation.

> For the first part when I do stuff with the wooden box practically speaking we always start … after we've loaded, there's a natural thing there, … which nicely grounds them in something they know they have to do, it's repetitive and it helps to get them into it. If I started earlier than that… it's not realistic.
>
> Ben

Participants related how they make continuous adaptations throughout an event informed by their perception of learner need. All participants reported adapting responsively to accommodate learners' skills. These decisions were informed by their knowledge of the workplace and concerned how other professional groups might perform in a clinical situation.

Firstly, all participants reported using judgement based on their knowledge of workplace as Sally's quote below illustrates:

> So like I said if it's a lot of ante-natal staff, we'll go to the ante-natal ward, we'll do a maternal collapse there, you want them to do x, y and z. That is based in terms of accommodating the skills we've got really.
>
> Sally

Secondly, they made adaptations in response to perceived learner vulnerabilities. Sally, Ross, Sarah and Greg described altering the sequence of simulation in the moment, to maximise participation. This illustrated the judgement they made regarding how learners might feel, illustrated here by a quote from Margaret:

> Again, that's really important, when you see them turn up (gestures quotation marks) 'safety in numbers' then you realise they're feeling a bit vulnerable and you have to take that into account with your design as well and your feedback. In my view the worst thing we can do is let them sit at the back and not participate but similarly if they are going to participate, they almost have to be rewarded for participating.
>
> Margaret

Margaret's quote above also illustrates a view expressed by Sally, Ross, and Sarah where some adaptations are made because certain groups are not familiar and therefore feel exposed and vulnerable in simulation and l*earners turning up in numbers* is seen to be synonymous with learner vulnerability. Learners from these groups were common participants when delivering simulation to meet uniprofessional

medical curriculum goals (Ross, Margaret, Sally, Sarah and Matt). Participant accounts reveal a tension between maximising engagement and authenticity for learners underexposed to simulation and running an authentic scenario. Adopting this approach is a pragmatic choice but does appear to contradict the simulation goal of authenticity as the experience is modified to take account of learner inexperience rather than created to replicate clinical reality. Margaret consciously adjusts levels of challenge within the simulation in a way she deems it is safe for learners to participate. This suggests that sensitivity in making simulation accessible has a higher priority than attempting to foster authenticity in the experience. This compromise is viewed as having longer-term benefits to improve the engagement with simulation across the department.

> …midwives tend to be less confident, less used to taking responsibility. I think doing something slightly different in a sensitive way will hopefully help them to develop and grow as well.
>
> Margaret

Finally, all the participants described different approaches to enhance engagement through the careful sequencing of the scenario. This mirrors the development of a storyline within a theatrical production, a well-established technique to engage with an audience. Sally describes creating a simulation day, set in a day in the life of a patient, in a clinical skill learning environment. Creating a story or narrative through sequencing events appears to facilitate learner buy-in.

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> We do have a story of 'one baby' so the first scenario is they're born, the next scenario
> is they end up on the neo-natal unit, the next scenario is they get more poorly. They
> quite like it when it's the same baby that they're looking after all day which sounds
> pathetic when you verbalise it but actually it's part of the buying into it all. I think it's
> quite powerful.
>
> Sally

All participants used this storyline approach to varying degrees and Sally's example is reminiscent of storyline within a play. In theatrical terms the narrative within a play creates a journey (Gale et al., 2016) to frame a story as a sequence of historical events to increase believability for the audience.

Matt reflects on the impact of this approach, he describes getting this wrong when creating scenes in an acute stroke care simulation for paramedics, nurses and doctors. Initially staging the simulation in the emergency room, but after poor evaluation from paramedics and in subsequent courses he adapts the staging to create an additional scene: an initial paramedic assessment in the home.

On reflection he revised not only the physical staging but also the use of realistic props and other environmental factors (such as wearing uniforms) that appear to communicate valuing paramedic learners as a group through their enhanced participation.

> I got their paperwork, their ambulance sheets and I filled all of those in, I added bits to
> the SIM beforehand, so we started off outside the simulation suite which is a hospital
> ward and I created a front room environment for them to be able to feel comfortable

in their environment as well. Almost I, I learnt from them from their feedback about

how to change the SIM.

Matt

Participants took time to consider the staging of the simulation shaped by the physical space, available equipment and their perception of learner need. This dynamic is strongly influenced by the context and perspective of the educator. The scenario they create is the narrative storyline the learners will co-produce and experience.

7.3   MANAGING THE CAST

The second sub-category *Managing the Cast* details the way participants describe their decisions in enabling technical components of the simulation to occur as it unfolds. This sub-category captures participant views on the action and how the ascribed roles the learners may or may not adopt could play out during the simulation. Participants describe creating immersive simulations in which their learners have social interaction. A pre-brief often sets the context to the event, for example, during *in situ* simulations a short statement such as a 'cardiac arrest crash call' or an 'urgent bleep' would set the simulation in motion. These are examples of where action is deemed to start and this movement from start to conclusion frames activities for learners, who throughout are reacting with the environment and other learners participating in the simulation.

Sally, Margaret, Ross and Matt described times when the simulation scenario requires involvement from other faculty staff. This could be considered in terms of 'casting

roles' as faculty staff frequently performed 'the role of a professional' when required. Performing roles of other professional groups is a contentious issue in light of simulation's goals of authenticity, as discussed in the previous chapter. Using one professional group to prop up a simulation experience for other professional groups is also suggestive of potential uncertainty of what that learner's profession actually does.

In theatrical terms, allocation of roles in a performance is achieved through establishing the theatrical cast where each cast member, defined by their role, can be identified as a one two or three-dimensional in character. One-dimensional characters have walk-on parts, they don't speak and their appearance is brief. Two-dimensional characters start to show one trait or emotion, but as they lack depth are described often as 'cardboard cut-outs'. Three-dimensional characters however are complex, conflicting and reflect a range of experiences, emotions, values and behaviours. This can be seen in descriptions of role allocation, an activity described by participants. Below, Ross is casting nurses as two-dimensional characters acting as a support to another's lead role giving them something to do and one activity he associates with them is to look after blood transfusions:

> …by introducing real blood to give some of the members of staff, who in simulation are otherwise standing there have been pretending to do something and you see them moving back. It gave them a very practical hands-on activity which was important.
>
> Ross

In this example the 'doing of nursing' is considered but to a lesser extent than other more focussed and detailed elements of the simulation. This again is illustrative of creating a hierarchy of significance within the simulation structures. Ross does want to give the nurses an activity, but this is to keep them busy as part of the wider scene, rather than explore their clinical work within the action. There appears to be therefore a relational feature between the roles he creates, some roles having more dimensional depth and subsequent complex action than others.

Ben provides other reflections when thinking about how to accurately depict real life in his simulations. A team member in his service is located elsewhere in the country but participates in the simulation remotely via the headset communication-device learners wear during the simulation.

…for example the nurse knows that they have to inform the crew that there's a clinical problem in the back and if they hit the buzzer and a bad example would be pressing the buzzer and going: 'Oh I've lost the BP!' because the crew thinks 'Shall I help you look for it, is it on the floor somewhere?' and having the crew there saying 'What were you talking about?' that's really helpful, if I didn't have the crew there, if I'm pretending to be crew they would just miss all that jargon stuff so if you don't include all the disciplines in it you miss a lot of good learning.

Ben

Ben suggests that making assumptions about a different professional in order to act the role in simulation reduces authenticity as inaccuracies of language use and

misrepresentation of actions can occur. Ben is clear that in creating his cast, he is trying to maintain an authenticity that might otherwise be lost.

> If you don't involve everyone present then you might just be working on wrong assumptions.
>
> Ben

It is clear from the participants' described efforts, assigning roles in simulation is clearly significant to how they practise. The factors that influence the focus of the action they direct are contextual. When a learner performs in their own role it allows three-dimensional characters to emerge. These circumstances necessitated that professional roles were enacted by others 'to make up the numbers'. In these circumstances faculty staff (Sally, Margaret, Sarah, Greg, Matt), or learners (Matt and Ross) acted as props, treated as walk-on parts, having a one, or two-dimensional role perhaps resulting in a typecast stereotype. These supporting roles appear to undervalue the profession they represent, presenting them as a prop, one-dimensional (Margaret), or as two-dimensional and conveyed as a stereotype or diminished version of the role (Ross, Sally, Margaret and Sarah). In the next sub-category *Exploiting the Subtext,* the participants describe how the non-technical or human factor performance they aim to achieve is considered despite some of the limitations they are faced with, when delivering the simulation on the day.

7.4 EXPLOITING THE SUBTEXT

In theatrical terms, the subtext of a script equates to the human interaction between the actors, as the plot or story-line is performed (Gale et al., 2016). This sub-category represents the space created by the technical performance for non-technical features to be enacted, these being the interactions between learners as they engage in the simulation. Participants are interested in human factors performance, which can be understood in theatrical terms as the 'subtext' created as an output of learner interaction when performing the technical elements of the simulation. This section explores how participants work with non-technical or human factor skills. Every participant considered the interactive features of simulation exposed learners to experience human factors learning in relation to individuals and team performance.

> Because a simulation event is a stressful teaching event, it's not like a power-point where they can sit and nod and check their texts and things like that.
>
> Matt

Exploring human factors learning in this setting considers a number of issues that can influence clinical performance such as understanding effects of teamwork, tasks, equipment, workspace and culture on individuals and organisations and is frequently explored through healthcare simulation modalities (Naik & Brien, 2013; Ives & Hillier n.d.). Participants were genuinely interested and excited about how they could explore human factors learning as Sally illustrates below:

The hierarchy gradient is fascinating, we do a human factors course with our medical

trainees and we do a scenario in that where they're supposedly managing for children

in the paediatric bay in an, A & E Department and an adult A& E physician comes in

and gives completely the wrong advice about managing the child to see what the

paediatric registrar does with it.

Sally

It is through the technical performance that human factor skills are enacted and

subsequently explored during debrief. To this end the technical performance is

exploited for its potential to explore human factor elements. The dimensions of this

exploitation include planning for human factors, participant-held views of performed

human factors and their anticipated/unanticipated appearance. Here Greg when

considering human factors learning, feels that whilst a scenario doesn't need to be

complex, it requires careful consideration:

….No, not necessarily complex but if you want the teamwork to come out the planning

has to be as rigorous.

Greg

All participants in this study had described explicit links between learning outcomes,

individual performance shaped by a syllabus, (Margaret, Sally, Ross, Matt and Greg),

team performance (Ben and Greg), governance reviews (Sarah), and human factors

learning. But unlike a technical skill that is explicitly stated, such as the performance of

an algorithm or a standard operating procedure, none of the participants explicitly

stated which human factor elements they expected to be enacted during the

simulation. Instead they held a 'global reference' to human factors learning:

….From distractions, not accepting their own flaws in knowledge, not being able to
speak up, we call them the dirty dozen, don't we and I'm trying to think of all twelve of
them now, it's probably a baker's dozen by the time I've finished.

Matt

The relationship between explicitly stated technical performance and implicitly

performed human factors resonates with the theatrical dynamic of script and subtext.

As Field (2007) suggests, as the live theatrical performance brings a script to life,

human factors performance in team simulation help illuminate learning that is difficult

to otherwise surface. Sarah's quote below reflects this dynamic showing the

emergence of human factors from the technical elements of the simulation:

…yes I will put that (human factors) as one of my learning outcomes because it's very
fluid process and I can't specify which non-technical factors will come across but I put
it as a learning outcome in a broad sense.

Sarah

As Sarah suggests, defining what might happen is difficult, resonating with 'subtext'

being defined as all the meanings that are not stated, but lying within the action during

a performance (Nannicelli, 2011). In a theatrical sense, subtext is used to express

feelings, provide the emotional history or intention within the event at the centre of

the scene and without subtext a performance can be viewed as superficial. As Ross

and Sally suggest below, the relationship between technical and human factor elements is embedded and without the performative element of simulation, enactment of human factors cannot emerge:

> Yes, yes I think the main thing that came out there was trying to get people to understand the link between technical and non-technical skills is completely meshed.
>
> Ross

> I suppose thinking about the human factors, there is that recognising deterioration and calling for help and we don't really plan leadership and how everybody works as a team so much, that's more something that comes out.
>
> Sally

Sally also notes that where safe technical performance is a learning outcome but isn't achieved by learners because basic knowledge is missing, then any human factors learning becomes a secondary goal. In this instance learning from the technical performance takes precedence:

> if that's what the candidates need to know then that's what they need to know and if they don't have any basic understanding about what's going on clinically then actually the human factors probably do need to take a bit of a back seat until we're up to speed with some of that stuff.
>
> Sally

Participants exploit human factors performance to reveal hidden social behaviour, being consciously or unconsciously performed through gestures, attitude, actions,

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inaction and reaction. This multi-layered observation is a complex activity as Greg's quote illustrates:

So for example often when the junior doctors come in, they feel like they have got to make all the decisions on their own because they are doctors and that's what they do and they almost ignore the nurses and the nurses allow that to happen because the nurses seem to think that their role is to be subservient to the doctors. Their part of it is understanding, that… that the decision-making process and diagnosing process is a joint decision and can only come through effective communication.

Greg

Greg in describing this interaction, sees an opportunity to explore professional behaviours in debrief. His description includes a critique of non-verbal interaction, similar to Matt's quote:

The nurses thought… I'm out of my depth here and then they took a step back and I think there were three nurses stood in a line next to each other with their arms folded.

Greg

Greg's quote illustrates how he read learner responses, noting visual cues he subsequently draws on during debrief. He exploits hidden layers within the performance, these start to emerge and are used enrich the learning. This learning happens through learner inaction as well as action. Greg's describes nurses 'waiting for instructions' and he will exploit this during the debrief as this human factor

element is related to better communication, assertiveness and the potential impact of hierarchy on performance.

> And then the doctors come in and the nurses go quiet and they almost wait for instructions. Then in the last three scenarios I can recall the Dr in each one made an error in diagnosis and in all three scenarios the nurses previously knew exactly what was wrong with the patient but the communication between them was non-existent.
>
> Greg

Matt contrasts complex team simulation with an advanced life support course (ALS) where learners, whilst performing in a clinical context, are demonstrating individual engagement in implementing specific pre-determined algorithms rather than exploring complex team dynamics. In the ALS course learners can anticipate the focus of the simulation, whereas complex team performance creates a rich subtext to exploit.

> …and they pass a test and they get an ALS qualification for four years. But then put them in a simulation suite, with other professional groups that are asking the questions and ultimately distracting, because they're not working by themselves in a controlled sterile environment anymore.
>
> Matt

For the participants, the overall learning outcomes help to frame the simulation and human factors elements they expect or anticipate might happen. Whilst human factors learning may not be explicitly expressed in terms of learning outcomes, participants exploit the opportunity for this learning through the technical

performance as a rich seam to mine. As explored in the previous chapter, simulation is

determined by the context within which it is delivered, this inevitably shapes the

performance of the simulation and subsequently the subtext emerges which is enacted

between learners. Action and subtext are therefore shaped prior to and during

simulation and are drawn from professional, individual or organisational contexts. In

this study participant accounts also reveal how their preconceptions frame the subtext

regarding individual characters, for example, Ben describes a value-based expectations

of subtext performed that he shares in his facilitation:

for a lot of the nurse/doctor stuff my underlying position is you have to work together,
you have to work in parallel, you have to do things simultaneously and not wait for
someone to tell you what to do, you have to question each other and support each
other and really function as a team. If they don't tick those boxes I'll want to draw that
out.

Ben

Ben already has a view of the skills, talents and abilities required of the learners and

how the absence of those things will inform the reflection during debrief (to be

explored in the next chapter). Ultimately the participants exploit the technical

performance to uncover human factors learning as a dramatist uses subtext to achieve

the overall objective of a performance to transform the audience and their perspective.

7.5   SUMMARY

This chapter has considered how participants stage, cast and utilise the subtext emerging from the action performed in simulation. Setting up simulation to accurately reflect real life practice was seen as key to engaging learning in technical re-enactment that simultaneously allows human factors learning to emerge. The degree of authenticity and psychological safety were dynamically managed as participants describe prioritising the emotional safety of the learner by either enabling or constraining the potential to which learners could interact within the simulation. This attributed action appeared to create lead and supporting cast roles within the learning group in the simulation. The performance of technical scripts creates opportunities for non-technical or human factor interaction to occur, but where roles within the script are not fully developed, the potential for complex interaction within the team may not be realised. Participants sought to exploit the rich and nuanced subtext that emerged from interaction between different professional groups to create content for debrief. The next chapter will consider debrief, and how participants' accounts detail their interpretation of the performance with and through their learners' reflections.

8   REVIEWING THE PERFORMANCE

You'd kind of be very inquisitive, sometimes you've just got to point it out and just say

'you did this it was great'… 'I didn't realise I was doing that' 'but you did!'

Ben

8.1   INTRODUCTION TO THE CHAPTER

Reviewing the Performance represents participant accounts of debriefing learners after

the scenario has been performed. In preparing the performance, participants worked

within or manipulated their context to create simulation scripts as a playwright crafts a

play. In rehearsing the performance, participants had a role in directing the action

when staging and casting the script. Now, as simulation performance has ended,

participants' accounts describe how they provide and facilitate a critical commentary

of the performance.

In debrief, participants described themselves as 'shining a light' (Greg) on practice and

identified with the idea of being a critic (Sally, Margaret), similar to a critic in the arts.

The notion of a critic describes someone who offers and facilitates an opinion on an

object, performance or text (Groden, Kreiswirth & Szeman, 2005). Margaret's quote

below illustrates her role as critic in serving to transform, attempting to generate new

understanding and awareness for learners.

Well I'd be the performance critic really I think so I'd be the one who watched the performance from a distance with a very objective view and then afterwards would pick it apart and try and explain to them what they did well and show them what they did well from examples through the video feedback but also look at ways they could improve their performance for the next show as it were.

Margaret

The debrief review signifies a point at which the simulation ends and a discussion about the event commences. The aim of this discussion is to facilitate learning that positively informs future practice, the review serves as a deliberative enquiry. The learners and if present, other learner-observers, join the educators to review the simulation performance. Debrief creates an opportunity to feedback on technical and human factor elements of the simulation. The debriefing is provided through faculty (study participant) involvement.

This category has three sub-category components: *Unpicking the Action, Capturing the Learning* and *Debriefing With, For and About.* These three sub-categories provide the section headings to present the findings related to this category. The properties and dimensions of the category are represented in Figure 9.

8.2 UNPICKING THE ACTION

Unpicking the action describes the features of debriefing reported by participants.

Debriefing is defined as the time and space following the simulated experience where

learners and educators work together to reflect on the action that occurred during the

event, (Arafeh, Hansen & Nichols, 2010). The accounts reveal a practice of enquiry

where specific techniques are employed to review the performance, elements of the

technical performance and the related subtext they previously selected. Participants

describe making a tremendous effort to provide debrief, clearly deliberating over

setting and relationship with learners and the focus and techniques used to enhance

the learning.

> So I think it allows professional groups that are in the same room together to know
>   what each other's responsibilities are, perhaps not responsibilities but what each

other's strengths are and equally importantly what their weaknesses are at that
particular time as well.

Matt

Moving from the simulation event to the start of debrief was identified as a significant transition that the educators actively managed. Sally, Greg, Matt, Margaret and Sarah all talked of a point at which their learners, recognising that the simulation has ended, needed time to disengage from the simulation performance. Participants referred to designing the debrief to occur in a separate physical space to the simulation event. The venue is dependent on the setting for the simulation but is frequently in another room/space to where the simulation has occurred. For participants this demarcation of a separate space to debrief appears to prompt a move away from action towards review, beginning a conversation to 'unpick the action' and asking about 'what just happened?' as Sally describes below:

Sometimes we physically go into a different room which is quite good because it does make that complete break from the situation, 'we're all going to get up and walk down the corridor' and then people start chattering and then you can pick up on the conversation in the corridor and then as you go in there join in with laughter 'oh that's really interesting so let's talk about…'.

Sally

Participants revealed that once starting to debrief, they deliberate on their analysis of the performance in the simulation. One concern is about their approach in addressing interpersonal dynamics, exploring the subtext acknowledged in the previous chapter,

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as they attempt to reveal the subtleties of action or inaction between learners within the performance as Ben describes below:

Yes and that might be quite subtle, it might be you know… you've got to bring it out in the debrief it's really interesting stuff all the dynamics. You want people to come away from a debrief feeling encouraged at the end you don't want them to feel bad …you sort of prepare yourself, this girl's quiet, is it because she is just terrified? Have I got to deal with that? Is it that she doesn't know what's going on and she's scared of being shown up?

Ben

All participants discussed a 'standard debriefing approach' mentioning '*the usual debrief', (Ross, Margaret),* when you *'do debriefing'* (Matt, Ben), and Sarah describes below this process as *traditional*, suggesting there is an acceptable norm for the approach.

I kind of think of a standard traditional debrief of a simulation scenario. So going round the people involved and getting the group's opinions about how the scenario played out essentially and then at the end tag on the technical aspects of it.

Sarah

Sally, Margaret, Ross, Sarah and Matt talked about a ratio of time, a relationship between the length of time to run the simulation scenario and the amount of time to debrief. They described this as ideally being equal, but time to debrief often varied because of pragmatic choices and possibly personal preferences they held, as Sally's quote illustrates below:

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I think people have made debriefing into this mystical witch-crafty deep art that you

have to be trained in... people think its very time consuming, which it really doesn't

need to be I think some of my best sessions have been half an hour with a 10 minute

debrief.

Sally

Whilst Sally's quote suggests a practical approach to providing debrief, participants

identified several educational approaches they thought occurred during simulation,

recognising experiential and reflective approaches (as Ross describes below), alongside

a recognition that learners are making sense of their experience. Knowledge

construction is also illustrated in Ross's quote including his reference to simulation as a

constructivist teaching strategy.

There was some degree of reflection going on, there was some discussion about how

they could do it differently... so I think they're learning a... I think they're putting, this....

so it fits into a framework of how they practise as a clinician so it becomes a clinical

event that they have been involved in so it fits in with a scheme of how that will

practice in the future

Ross

This notion of sense-making in the debrief concerns learning about technical and non-

technical/human factor performance, learning through the experience of performance.

Greg, when describing the experiential nature of simulation, sees the experience as an

opportunity to critique working knowledge held by learners and their relationship to

other professions during the simulation.

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But tacitly they are learning about each other through the debrief if that makes sense as they are always learning for example when the doctor might be reflecting on what happened the nurses are thinking ...'well actually these are quite junior doctors, we probably should have spoken up and we probably should have done this and we should have done that'

Greg

Matt's quote below also illustrates this feature of simulation as practice, how tacit knowledge is explored during debriefs and uses the action within the simulation to explore working practices:

…and I said, 'What does that make you feel now about that situation?' and one of the feedback from the nurses was, 'they're human as well and if they don't know we shouldn't expect them to know'. At that point I looked across at the medics and they were all kind of nodding as if to say yes… And I think a lot of the learning about each other does come from tacitly rather than explicitly in this.

Matt

Models of debriefing have traditionally been imported from the aviation industry and have typically included viewing what went well, what didn't go so well and what could be done differently during future practice (Jeffries, 2012). Dreifuerst (2012, p.1) describes debriefing aiming to facilitate learners to undertake 'inductive and deductive thinking skills foundational to critical thinking'. Debriefing is seen as an essential cornerstone of simulation. However, within the literature debriefing techniques vary greatly (Cheng et al. 2015; Neill & Wotton, 2011). One technique that was identified

by all participants was Advocacy with Inquiry (Rudolph, Simon, Dufresne & Raemer, 2006).

we try to push advocacy with inquiry as a way of digging deeper into learning We need to know why they're doing it the way they're doing it we need to have a better way digging that out.

Greg

Advocacy with inquiry was viewed positively by all participants who aligned with its aims to enquire about actions during the simulation in a non-judgemental way. This approach helps them to frame their questioning and facilitation approach to explore situations potentially without any detailed prior knowledge or technical understanding of aspects of the simulation. Whilst this technique was favoured by all participants, their view of its success appears to be dependent on the dynamic with the audience and the focus of the simulation. This is explored later in this chapter, but here Sarah and Matt explain why they favour Advocacy with Inquiry.

I quite like an advocacy with inquiry strategy. These are techniques that I like, the sort of non-judgemental or structured good judgemental debriefing and are quite well rehearsed in the non-technical aspects of what's happened.

Sarah

I can ask them about and I can still get them to break down their thought processes and why they did what they did without actually using any judgement and then that normally creates discussion amongst their professional group and other professional groups so actually the ultimate A game gets discussed with everybody else.

Within the recognised structures of debrief such as space and time and technique, participants also talked about themselves as a debriefing feature; how through self-awareness they made adaptations to the debriefing approach. Matt, Margaret, and Sarah all talk about bringing elements of their own personality, this being seen as a positive contribution, being aware of their positioning as both a work colleague outside of the simulation event and as a member of the faculty. They are sensitive to the learners who can sometimes feel pressured or exposed during simulation. To mitigate this, all participants describe points at which they use humour to ease the situation.

> … in the debrief we go back to it over and over again until it becomes quite funny if you know what I mean, if that makes sense? So take a more light hearted approach to it and I think the message is still there it lightens the atmosphere, people don't feel that you're being as critical in one way and I think when people can feel relaxed and can laugh about it they're more interactive and likely to contribute to the debrief as well.
>
> Margaret

Participants described making great efforts to create an inclusive safe place for 'unpicking the action' through debrief. Sarah describes using her presentation as a young female doctor to address perceived threats about her role or position to enable quieter learners to feel able to participate in debrief. Sarah points to parallels of adapting communication styles within debrief to that of patient communication,

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suggestive that her technique changes according to the learner group and that she is actively managing this.

> I think in general as a character. I am not particularly imposing as an individual. I'm not imposing my personality. That's not particularly imposing I think you can change your debriefing techniques dependent on who you're talking to much as you would in a communication situation with patients.
>
> Sarah

All participants wanted to create a safe space to enable a positive learning environment. To achieve this, they described the need to be flexible and adaptable, to have a degree of self-awareness of how verbal and non-verbal features of their actions influence the debriefing dynamic.

> I think that improving the sense of safety in the learning environment is really important for debrief and the quality of the debriefer.
>
> Ross

All participants were sensitive to making every simulation experience positive and this included appearing 'fresh' to the situation for their learners, even when they had run the same simulation many times. They described running simulation scenarios repeatedly and with some frequency and reported that the repetition of simulation courses with multiple groups made their active participation challenging. This created some concerns about maintaining the authenticity and safety of debrief for learners across successive cohorts. Here Margaret deliberates how every simulation event

required a conscious acknowledgment that as far as her learners are concerned, it needed to appear that she was viewing each event for the first time.

Yes it's really easy to be critical, it's harder to remember always to bring out the positive parts because you watch it and when you've done it a few times you think yes that went well, that went well but you have to remember that's feedback they need, so I can see it went well but I have to remember to point it out to them.

Margaret

In this first sub-category, participants describe a deliberative and reflective approach to their role as reviewer or critic. They recognise several ways by which they influence the experience: their presence; demeanour and characteristics; the focus and style of debriefing; perception of learner vulnerability; structure and methods used; length of simulation and time required to debrief. The next sub-category explores learning that is facilitated through these features: the outcomes of simulation.

8.3   CAPTURING THE LEARNING

The first category *Preparing the Performance,* described participant accounts when devising the initial outcomes of the simulation, namely to facilitate learning of those features of technical and non-technical or human factors they had directly planned or anticipated could unfold during the simulation. In this sub-category, as part of the category *Reviewing the Performance,* participants express an opinion that the unscripted, improvised performance of the learners is often unknown. At the outset,

participants may not always anticipate what performance will emerge from the simulation that they can capture in debrief. They describe themselves as holding a number of these potential outcomes in a state of 'readiness' for debrief, including issues around teamwork, technical performance, and human factors, for example understanding hierarchy and communication. The learning points that become available for debrief are dependent on learner performance in combination with the learning aims established at the outset. The participants remain alert to capturing these depending on what occurs in the simulation. As Sally suggests below, this state of readiness also requires flexibility to attend to what learners might raise as a learning point in debrief, thus underlining the mutuality of the learning:

I think it's about being flexible it's about being open. It's about being able to talk about things that weren't on my agenda. There are always two or three things I take away that I have learnt from the course. It can be challenging and probably as a facilitator, you need to have a degree of confidence to be able to say,' that's really interesting. I haven't thought of that before, thought about it that way, I need to go away and have a think about this again.

Sally

Learning about teamwork is a key outcome that the participants aimed to capture, and used debrief to draw out the performance of teams with reference to both technical and non-technical or human factors elements. Debrief needs sensitive handling and all participants described navigating subtle dynamics when providing feedback about teamworking that relates to individual performance and overall group processes. Greg

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below describes how, when debriefing scenarios where the teamwork may not have been successful, he tries to avoid giving individual attention:

> Yes, as you are doing the debrief you are trying not to debrief individuals you are trying to debrief the team.
>
> Greg

The participants report that another significant, and at times sensitive, aspect of exploring teamwork in simulation is exploring the relationship amongst the learners at a professional level. All participants reported reviewing this as part of their role, and the quote from Ross below illustrates the detail to which they consider this dynamic. This example relates to hierarchy gradients within a profession and across professional groups:

> There were several senior nurses…on the hierarchy between them and the registrar, during the resuscitation wasn't too steep. The junior doctors were much less sure of themselves, perceived a much steeper hierarchy towards the leader, and that resulted in several episodes where people weren't speaking up because they seemed that the person at the top was all singing all dancing. Whereas the person at the top didn't perceive that steep hierarchies were there and assumed by people not saying anything, that there was nothing to say.
>
> Ross

Participants often used debrief to explore leadership performance and in doing so set the context for how leadership is contextualised for the learners. In these two examples below, participants discuss exploring ideas of expertise, authority and

identity. This exploration is framed in relation to the learning goals, within a team-orientated function as the example from Margaret below shows where she is challenging and questioning who should be the leader amongst nurse practitioners and medics and managing this through fostering open questioning.   In the other example from Sally this is set differently, the curriculum is designed for the medic, the medic is the leader and consequently the outcome is shaped.

Who's in charge here?, 'Well he's the doctor, he's in charge'. 'Well does he have to be in charge, who else could be in charge?' And actually the doctor is often the wrong person to be in charge but the feeling is 'Oh a doctor's arrived' kind of handed over responsibility so we will talk about and the more senior midwives will say 'no I wouldn't let him do that I would carry on'.

Margaret

Yes because its curriculum-based I am wanting to see their leadership approach.

Sally

Participants are managing complex dynamics between the learning outcomes and the action within the scenario. Capturing the learning requires careful handling by the participants, for example when exploring learner comprehension through discussing actions they might have witnessed, unpacking this observation with the learner and addressing the cognitive, behavioural or affective processes that informed the action. Exploring learner comprehension was often talked about by using the phrase 'mental models', which in broad terms refers to an explanation of prior mental rehearsal

perhaps of a technique, process or imagining themselves in a situation (Gentner&
Stevens, 2014). In essence, due to the unpredictability of how scenarios unfold
participants are working hard to capture *if* the learner is using an opportunity to
explore mental models. For example, in exploring learner comprehension participants
wanted to expose individual thought processes to the wider team. Below Matt
describes how he goes about capturing the learning, facilitating debrief to enable a
learner to share the rationale for their actions to the wider team and consequently
discuss with others the concept of mental models and how these may or may not help
safe and effective practice:

> I'm facilitating de-brief, I'm not telling them how to look after patients I just want to
> know why they did what they did, if I use advocacy with Inquiry then other people in
> the room know why they did what they did rather than just the person and it gets
> inside their mental models a lot easier than me just going 'I'm glad you didn't put any
> oxygen on because a lot of people do'.

> Matt

All participants in this study considered debriefing an opportunity to 'capture learning'
about communication. They described the value of debrief for this in two ways, firstly
to enable learners to gain confidence in talking about their experiences with others.
Sally's quote here reflects the value all participants place on the opportunity debrief
provides for talking:

I think it's just permission to open up both those channels of communication, permission to say just because you are a 'whatever', doesn't mean that we don't want to hear what you've got to say.

Sally

Secondly, the effectiveness of communication when viewed as a performative or technical function of teamwork was also considered to be of value by the participants. In this context, debrief around communication would refer to specific communication tools and algorithms commonly used. Ben describes below how he uses debrief to explore conflicting views held by the learners that had been formed through ineffective communication strategies:

So what I'll be looking for is a division of tasks where nothing got missed and when something came up that required intervention or improvisation that clear communication, you know the scenario 'you thought they had this I thought they had that' that might come out in a debrief.

Ben

This sub-category has presented how, when critiquing the simulation, participants describe using techniques such as advocacy with inquiry and their own interpersonal skills to facilitate debrief. These were the main ways that enabled participants to be ready to review the outcomes of the performance to enhance awareness of technical and non-technical skills. They reported this as a complex process, having to manage this in a fluid way because of the unpredictability of the learning points that may arise or the outcomes that could be met. Their descriptions illustrate a selective process

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where the subtle dynamics found within the performance are captured and held to be included in debrief. The dynamics in debrief also require the participants to have a high level of interpersonal skill alongside awareness of team processes. The final sub-category in this chapter considers the participant reports of who debriefs whom and in what context.

8.4   DEBRIEFING WITH, FROM AND ABOUT

Finally, the third sub-category describes a concern held as to who debriefs whom, as facilitation and leadership of debrief holds significance for participants and learners in relation to reputation and professional and experiential orientation, which is further contextualised in Chapter 8. Participants reported various tensions around deciding who should debrief in relation to technical and/or non-technical skills performance. This tension related to the dynamic and complex relationship between these two aspects of simulation performance and the professional domain or area of expertise where the skills set are located. Who reviewed the simulation in this study was related to: the degree to which features of technical or non-technical skills are performed; confidence of the educator; reported acceptance of cross-professional debriefing by learners and the availability of a multi-professional faculty to debrief. Participants described the question of who should debrief as a contentious one, because often faculty staff were made up of a number of educators with different professional backgrounds. From the responses it was clear that some of the participants had

considered this aspect of the simulation experience (Matt, Greg, Sarah) others less so (Ross, Margaret). Here Matt's quote highlights the tensions surrounding who delivers debrief:

The non-technical skills the feedback is always 95+% of the time that they enjoyed the non-technical, medical and non-medical staff even though predominantly it's me that delivers that so when it comes to the non-technical skills they don't mind, they appear not to mind who delivers that part but the technical job. Specific stuff nurses prefer nurses in my experience, medics prefer medics and I'm told in conferences that I've been to that it shouldn't matter, but experience of de-brief is that they prefer to be de-briefed by one of their peers.

Matt

In this study, Margaret, Ross, Sally, Sarah and Matt all provided postgraduate medical education-based simulation to multi-professional groups of learners. Often in these circumstances a medical colleague, Sally or Margaret for example, would lead the simulation debrief supported by a faculty colleague from another profession. However, where individual performance in teams was being considered, uniprofessional debriefing often occurred. As indicated above, Matt, as a member of the clinical skills centre teaching team, acted to lead or support debrief with other educators from different professions. The participants' accounts reveal that they seem to accept a rationale that human factors learning can be debriefed by anyone irrespective of their professional background, but the dynamic between technical and non-technical complicates this rationale and they often contradicted themselves. Throughout,

participants held different perspectives on the question of who should debrief whom

and why it matters and the circumstances when they adopted a debriefing role they

were unhappy with (Greg and Matt). Sally and Margaret described working with

members of the faculty from other professions to ensure that learners would debrief

with faculty from their own profession. Sally describes being able to identify with the

learning needs of her own professional group, but not others, as a reason for needing a

multi-professional faculty, as she cannot always attend to specific learning for other

groups as in this example:

… I think by being multi-disciplinary as a faculty really helps that because I could set an
agenda for a day but not really understand what our new starter nurses need.

Sally

Sarah and Ross didn't appear to view this as an issue. Sarah described techniques that

she would use related to her gender and communication style (as described above in

the previous sub-category) there is an absence of this consideration from the account

that Ross provides. Sarah views that having another member of faculty to debrief

those professions different to her own as reinforcing the hierarchy gradient that they

are in fact trying to expose and overcome as part of simulation-based education.

Typically, although I don't think it's necessary that there should be a nurse debriefing
to a nurse. I think sometimes the hierarchy gradient improves with that. I think
sometimes people perceive that I as a medical registrar sometimes I can't or not, can't,
but may be a little bit too imposing to debrief to some, to a nurse. I think that with
practice, I don't think that that is necessarily true and I think that that is other people's

perceptions rather than initially, rather than to the actual outcome so there might be a
bit of reluctance at first.

Sarah

This issue was the least contentious for Ben who felt that within his organisation colleagues were confident to be debriefed by anyone but noted that the simulations he ran focussed more on non-technical skills. His quote does suggest that he doesn't see his professional background as an issue as he identifies that he has the appropriate level of expertise:

At (workplace) because they're medics I don't see it as an issue for 90% of things, if the scenario has involved a particular skill. If it's something like an intubation then because the nurses are intubation assistants we've often been present at more intubations than the doctors over careers and we're able to give input into that but actually practically speaking there's probably someone there who knows a bit more than me or with the right attitude the doctor might be debriefing themselves in terms of the actual skill and that doesn't come up really in my scenarios because I haven't yet added that kind of fidelity.

Ben

Matt, Greg, Sally and Margaret all shared a similar view regarding learner expectations around who should debrief whom. From their accounts having a multi-professional faculty can resolve, but also potentially impede, learning they deem as desirable.

When we've been particularly short on faculty and I've had to adopt a technical role controlling the SIM, controlling the manikins which means I'm not able to effectively watch, take notes so then I can't de-brief we'll allocate a colleague which is normally a

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medical colleague to de-brief the whole group and the feedback from the nurses is that they don't feel like they've had an appropriate de-brief. Medics want to have a medic in there as well because they want to have that peer assessment.

Matt

Greg also raises an issue of hierarchy gradient affecting the debriefing relationship between himself as a nurse faculty member and the learners.

Sometimes its not about the technical things, you know a doctor might say 'well who is the nurse telling me what to do, telling me how to do my job' well we are not telling you how to do your job for starters but when it comes to teamwork it's different it should be standard I don't think it's difficult.

Greg

Sally recognises that asking learners to note and reflect on the actions of other learners during the simulation is very powerful, helping to facilitate insight about teamworking. When asked about the opportunity to role model cross-professional debriefing she is surprised by the idea and hasn't thought about the positive effects for debriefing this might generate:

Sally: I can't say that's something that's particularly struck me, I can't remember, I shall think about that.

Researcher: You don't see that happening?

Sally: Yes I think it brings out the insight into how everybody works a bit more but I don't know it's not something I've positively thought about.

This cross-professional relationship between the debrief provider and learner was also reported by Greg who considers uniprofessional debriefing as a potential barrier. His quote below sums up the conflicting issues of uniprofessional debriefing around human factors learning where flattening hierarchies is a desired learning outcome. He appears to suggest that, whilst trying to achieve an authentic debrief around technical skills via a uniprofessional debrief, this can lead subsequently to preventing learning about teamwork. In this account he is also laughing slightly in embarrassment that he is performing a contradiction. This contradiction refers to a lack of role modelling, in some way reinforcing a hierarchy gradient and demonstrating poor cross-professional communication:

I can pick out teamwork if it's a group of nurses or a group of doctors, or a group of nurses and doctors and that's what we're particularly thinking about in these situations. But we still have a multi-professional faculty and whether that affects being able to pick out more stuff I don't know as often the doctors will talk to the doctors in the debrief and the nurses to the nurse, not always, but that can sometimes be happening and I wonder whether that can be a barrier to learning.

Researcher: Why do you think that might be a barrier?

Because once you start to focus on learning about one particular group the learning about teamwork can take a backseat but then mmm it's a difficult one I don't know whether that always happens, but it's got the potential to happen I've seen it happen, I've seen doctors you know when debriefing, talking mostly to the doctors and it's

almost like they turn to the nurses and try and include them and that can have an

impact on how we learn.

(laughter)… now I'm laughing as I'm saying it, it makes perfect sense and I am thinking

have I seen this in practice, and I think I have I think I've seen doctors who are scared

to death of debriefing nurses and they have then got nurses involved in the debrief but

if they are learning from and about each other then a really don't think that that

should matter and I think I would be quite nervous about just having me and senior

doctors or nurses in the room so...

Greg

Whilst the question of debriefing across professional groups appears to be contentious,

participant reports do reveal positive examples where *peer* cross-professional

debriefing amongst learners occurs. Reservations around debriefing within and

outside their professional background disappear, as when participants describe the

successful features of simulation, they include times when learners actively debrief

one another. Participants viewed that when this happened the simulation was

deemed a success as their input and insights were not required. Sally captures this

viewpoint in her quote below. All participants were very passionate and excited about

the powerful nature of this peer feedback as Sally describes, and all valued the

learning they also gained from the interactions.

by lunchtime they're very relaxed with each other and good at not just doing that 'I

think you did that really well' but also being politely critical of each other in a

constructive way, I don't think I've ever seen anybody annihilate anybody in that point

of view. I think that's really powerful as well because I think it also makes the people

taking part that it wasn't just them that were thinking about whatever it was. Quite

often everyone will say 'I thought that was a really good idea, it wouldn't have even

dawned on me to have done…' and I think that's really powerful

Sally

8.5   SUMMARY

In this chapter the factors and influences that shape the participant approach to

debrief were considered. During this point of the simulation event participants

describe issues and concerns when facilitating a critical commentary of the

performance. Their accounts describe a role where they provide a critique of

performance in serving to facilitate transformative learning. Participants report using

techniques and approaches to unpick the action, which creates an opportunity to

capture learning about individual, team and organisational issues through participation

and feedback on technical and human factors elements. When debriefing, participants

report a complex dynamic between debriefing for curriculum goals, team approaches

to learning or specific techniques or processes; debriefing themselves or with other

faculty members and the dynamics held within those interactions; debriefing about

technical or non-technical skills which in themselves have a complex relationship.

Finally, the dynamic between learners and person debriefing can be both enabled and

hindered by professional relationships, levels of expertise, knowledge of other

professions and was seen by some as a way of modelling a flattened professional

hierarchy.

In *Reviewing the Performance*, as in previous chapters participants are working with

several influences and concerns, seemingly both consciously and unconsciously, that

contribute to their facilitation of simulation for their learners. The next chapter

considers how participants viewed simulation. This will draw on the processes

described in the previous chapters to uncover what has been termed in this study

'defaulting views'.

9 RECOGNISING DEFAULT VIEWS

9.1 INTRODUCTION TO THE CHAPTER

This study set out to explore the facilitation of interprofessional learning in simulation through how it is perceived and understood by those who are responsible for delivering it. The participants were clear in their aspirations to provide a safe space to rehearse team processes that enhanced patient safety outcomes. Simulation was used as a vehicle to deliver policy and curriculum drivers of improving patient safety through improving teamwork and collaboration, also a key aim and intent of interprofessional education.

What this category presents is an interpretation of the accounts that reveals how the participants' work of planning and delivering simulation is determined by what is termed in this study as a 'default view'. There are two sub-categories to this category: *Curating the Default View* and *Holding a Default View.*

Whilst the category *The Default View* is presented last within this work, this can also be traced throughout the findings as described in the preceding chapters.

9.1.1 Introducing 'Default'

> (default) is what happens when nobody thinks about it. It's a choice made without realising you're making a choice.
>
> Perry (2017)

In this study the notion of default was drawn from the work of Grayson Perry (2017) informed by Laura Mulvey's work, where she presents the idea of 'The Male Gaze' (Mulvey, 1997). This gaze is formed from a dominant male perspective and shapes how mainstream cinema presents a representation of life through this 'dominant lens'. Perry in his book, 'The Descent of Man' (Perry, 2017) considers this idea of dominant narratives within society, a view accordingly shaped by a white upper-class male, whose take on society 'so overlaps with the dominant narrative' it becomes difficult to untangle from 'proper, right-thinking' attitudes of our society' (Perry, 2017).

> I like the word 'default', for not only does it mean 'the result of not making an active choice', but two of its synonyms are 'failure to pay' and 'evasion', which seems incredibly appropriate, considering the group I wish to talk about.
>
> Perry (2017)

The idea of a 'gaze' being channelled through a certain lens is pertinent to this work. As in previous chapters, participant accounts of their practice engaged with a number of organisational, professional and procedural structures not always explicitly acknowledged as shaping the simulation experience. These features dominated how simulation was staged and this resonated with the notion of pervasive default views.

As Perry suggests, holding constant awareness of defaulting views is difficult, as we often live and breathe this view (Perry, 2017).

In this study, participant accounts reflect the difficulty when working with defaulting views, instances are explored where an awareness of defaulting positions is noted but practice isn't modified; where defaulting positions dominate without acknowledgement and where dominant pervasive views are acknowledged and efforts are made to challenge this lens.

Participants (Margaret, Sally, Sarah, Greg and Ross) seemed to be operating with a lens where default views shaping their practice were not acknowledged. Matt did describe reflecting on the lens he used, but his accounts also show how he too passively operated within the default dominant perspectives. Margaret, Sally, Greg and Ross clearly stated expectations such as 'the way things should be' and 'the expected roles' they want to see, suggestive of a defaulting reference point, which supported the utility of the term 'default' being used.

Ben held a different perspective to other participants; he describes working within 'this dream inter-disciplinary environment and training'. Ben describes his workplace as having a culture that emphasises equality and he contrasts this with other workplaces where:

   …we're constantly dropping ourselves into non-inter-disciplinary teams so you go to
   this hospital where there is a clear hierarchical gradient going on and there's all sorts

of assumptions there... it happens so often, so you are always seeing what a non-inter-disciplinary team is like.

Ben

Ben above acknowledges his view of simulation is different to defaulting views elsewhere, his lens is set differently because of the defaulting position his workplace culture supports. When asked about how he practised, he consistently refers to the equality within his workplace as his reference point.

As Perry (2017) suggests, untangling dominant perspectives is difficult due to its pervasiveness. Participant accounts often reflect a dichotomy, describing both awareness of trying to be objective but also acting in accordance with defaulting views. From these observations the following working definition has been developed:

The default view represents a passive engagement with pervasive dominant perspectives shaped by role, background and context that consequently shapes the learning for others.

The word 'default' helps to capture aspects of the accounts where participants' approaches to both presenting and debriefing simulation are passively or uncritically selected. From their accounts it is clear that, whilst being aware of structures and processes deemed to minimise subjectivity in debrief (such as video capture or

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facilitation techniques), participants at times contradicted their own awareness by being subject to default views in framing the debrief. This perspective is illuminated when participants question their own defaulting view so that something that is usual or standard is re-considered.

In Mulvey's work (1997) the male gaze was the dominant perspective that shaped how the cinema lens presents 'life' back to the viewer. In Perry's work the defaulting view is a dominant perspective of how things are, threaded through the fabric of society (Perry, 2017). Simulation providers also shape an account of clinical life for their learners. They selectively re-present content that is then re-experienced by learners in debrief. The remainder of this chapter now considers the default view each participant held, shaped by their role, profession, curriculum and context, and educational preparation that shaped the way participants considered the endeavour of simulation. It is suggested that, whilst participants sometimes recognised dominant influences within their practice, they also operated within pervasive defaulting views and this influenced how they went about their simulation work. Importantly, in the context of this study, when participants either noticed or questioned the interprofessional learning experience for every learner in their simulations, it is proposed that they were levelling an interprofessional gaze that reconstituted their default view.

There are two sub-categories to this category; firstly, C*urating the Default View* where the process of selecting and organising content happens. Whilst this is a practical

process, the act of selection signifies the importance of the selected content for debrief. This collation process has the potential to change the representational qualities of the simulation as the educator is preserving action for future discussion from their perspective as observer. This process is an interpretative act, the re-presentation of action back to the learner places significance on what is selected. Framing action in this way determines who is responsible or accountable for what is happening in the selected moment, irrespective of what happens directly before or after. This interpretation becomes a manipulation of the action through the lens of the educator and new accountabilities of action are attributed to the learners.

The second sub-category *Holding a Default View* explores the influences and concerns that appear to shape the default view of the educator.

These two sub-categories provide the section headings to present the findings related to this category.

9.2   CURATING A DEFAULT VIEW

Debrief is seen to be an impactful transformative part of simulation where peer and self-debriefing can occur (Hart, McNeil, Theodorson, Kriti & Scott, 2012). Participants valued opportunities where learners engaged in individual and peer-debrief and facilitated this by using selected elements of the simulation.

Default views are collated through an interpretative activity as participants, after selecting and organising the original content, re-present this content back to the

learners. Participants preserve the action through their own lens, shaped by their default view, and the resultant re-experiencing of the original action by learners is thus curated, in that it is selected and organised in a particular way.

The participants used several ways to gather examples for feedback from the simulation event, such as video, using another member of the simulation faculty to act as scribe, writing on a whiteboard or notepad or making a mental list. This process preserves certain details of the simulation producing content that becomes a required element for debrief, often taking as long to conduct as the simulation itself. In this sub-category, how the act of producing content shapes its meaning is explored rather than the meaning of the content itself, as how the original interaction is re-experienced during debrief is dependent on what is selected and shared by the educator. This 'new' curated content has the potential to assume new meaning and increased importance, and other content disregarded, orchestrating the review through resequencing action (Knoblauch, Tuma & Schnettler, 2014). Participant accounts reveal that this process is of itself an initial interpretative practice concerning what is deemed worthy of attention. This initial organisation of feedback to include in debrief appears to be shaped by a default view.

The decision to select specific content is determined either at the outset, relative to the learning outcomes, or in action as the educator anticipates courses of action within the simulation (Kolbe, Grande & Spahn, 2015). The selected events then create a 'narrower, focussed view', shifting the perspective to highlight what is significant to

the event from the observer's perspective. This new, re-presentation of performance

is the content that is re-experienced and discussed by the learners.

For the participants in this study, the environment and available resources often

impacted on how the event was recorded and they consequently reported using a

variety of methods such as digital video capture, scribing (where activity is noted on a

whiteboard) and making mental notes to recall action to subsequently debrief. Whilst

each method of collecting content here is different, there is a common interpretative

process underpinning the capture of certain content, aiming to preserve details of the

action deemed appropriate for debrief.

Sarah, Margaret and Matt all described using video feedback to capture action. The

use of video is seen as a gold standard mode of collating content when debriefing,

arguably to avoid instructor bias (Hart, McNeil, Theodorson, Kriti & Scott, 2012).

During debrief selected parts of the recording are replayed to the learner and used to

facilitate a conversation where the learner can see and review their own performance.

Matt below is describing a multiprofessional simulation for a postgraduate

uniprofessional curriculum. The act of selecting is guided by his interpretation of what

should be learned, he signifies the importance of the selected action (uniprofessional)

when re-experienced by the wider (multiprofessional) group during debrief. This

selection consequently infers what is significant when re-experienced by the wider

group. Matt indicates even before debrief begins, that the work of the medic is

deemed to warrant particular attention, as the context of the simulation is to meet uniprofessional (medical) curriculum goals.

> I particularly focused on one of the medics that was in there and showed the video and critiqued it. The discussion happened and they found that quite useful.
>
> Matt

Sarah takes a different approach to other participants and reports using video filmed from a static position reviewing the film in its entirety. Sarah is frustrated with the technical issue of having to watch the whole film from beginning to end as this is time-consuming, but her learners re-experience the whole of the recording together. Whilst describing this as unsustainable, the review preserves the action and re-experiencing this action is therefore not viewed through only Sarah's lens: her interpretation of events, but that of each person viewing it. Margaret also uses video to capture the event but via a handheld camera, stopping and starting the recording as the simulation runs.

> I tend to zoom in on, and sometimes I'll move if I can't see things very well, I'll move around the room.
>
> Margaret

Margaret's approach illustrates how she is interpreting events as they unfold. Margaret has a perspective of what she expects and how the action captured aligns with her interpretation, selecting and re-ordering, through her own lens, of what she

deems significant within the performance. Ross and Sally capture events through scribing or making mental notes, again organising, discarding and selecting action. They capture and interpret the action during the event, consequently attributing the factors that are responsible, and therefore accountable for, the action within the simulation. Margaret above zooms in on action, creating a view to focus on a particular point, and the background and action surrounding this view within the scene is gone. Margaret in creating the video this way, is attributes the learner in the scene accountable for the action within this view. She is providing a 'close up', despite the action that is occurring simultaneously that might also be contributing to the outcome of the action if the video captured a wider perspective. It is in this act that she can alter the accountability of action in the scene. Similarly, when an educator mentally notes content, they too attribute what is accountable for this action as the wider activity is not captured in this curation of content.

Ross uses a scribe (who is another member of staff) to jot down significant moments to focus on and views this approach as a method to manage any disparity between what he thinks has happened and what others have witnessed. His faculty colleagues help to curate the content and their involvement in this act, he feels, helps to accommodate any failings in his recollection of the action. Arguably they too act to conserve what they see, shaped through their view. Sally appears to be less bothered about attempting to moderate any of her potential interpretative influences, as she seems to be surer of things she considers important to recount.

I scribble down some notes of some key things that I want to make sure that I bring up because you can't remember everything.

Sally

Whilst each method to preserve action is different, the act of selection, organising and then re-presenting action is common to all. Sarah uses a static video camera in a corner of the space capturing a whole view of the performance. It provides her with the potential for all learners to look back at the film and see who was accountable within the scene for all the action it contains, as it is all caught on camera. Margaret 'zooms in' to make video footage, moving around the event and consequently a selected re-presentation of these events occurs. The two different approaches to video capture illustrate that the act of recording is meaning making, inferred from the way the person holding the camera chooses to record the action. Ross and Sally's actions also reflect this practice and their choices are an interpretation too. Margaret focuses in on action and consequently re-configures the re-experienced interaction. This focus places significance on what is selected and discarded and communicates the importance of this selected action to the learners.

In this first sub-category, participants attribute significance to action, as they scribe, make mental notes or film to preserve the action they see for others to re-experience.

This activity focusses learning on selected components and thus elevates their significance. The actual or figurative lens used becomes the default view through which learners revisit the simulation.

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Exploring the mechanisms by which action is reviewed and presented illustrates how participants re-present the action to be re-experienced, guiding what learners will consider during debrief. The mechanisms of video, scribing, notetaking and memory becomes a means of curating content for debrief, and potentially attributes hierarchy, significance and importance of what is shared and what is not.

This first sub-category explored how the mechanisms used to capture and curate content for debrief featured interpretative actions, the second and third sub-categories explored what influences or concerns shape default views for participants in this study.

9.3   HOLDING A DEFAULT VIEW

This sub-category considers how default views might arise from issues and concerns held to be important by participants. The participant views used to illuminate this sub-category are not intended to classify or create summaries of default views, but to highlight that a default view exists, and this lens influences learning experiences. The examples serve to illustrate where a default view impacts either consciously or subconsciously, implicitly or explicitly on the learning experience of simulation shaped by participants' educational preparation, role, background and context of simulation.

All the participants mentioned educational theories that informed their practice inferring that these shaped their view of simulation; these included experiential, reflective and adult learning theories. All participants described using techniques such

as advocacy with inquiry as mentioned previously. As educators they discussed these in general terms, recognising that learners needed to reflect in simulation (All), that simulation was experiential in nature (Greg, Matt, Margaret, Sarah, Sally and Ross) and that constructivist theories were useful in understanding how learning can be shared in debrief (Ross). Participant accounts of how these theories featured in simulation were at a descriptive level and did not frequently appear in the data, or where they did appear it was to specifically inform the selected content for debrief.

Within the context of their simulations, participants used, often interchangeably, a number of phrases to describe occasions where learners learned together. Terms used included: multiprofessional (Sally, Margaret, Sarah, Greg, Ross), pan-professional (Sarah), interprofessional (Greg, Matt, Ben, Sally). The term '*interprofessional*' was used by Greg and Matt. Greg used the term '*with, from and about*' which is synonymous with a definition of interprofessional education (WHO, 2010; CAIPE, 2006). Greg describes looking back on simulation that he would view as interprofessional and he also talks about both interprofessional and multiprofessional learning being *tacit* learning not articulated in the learning outcomes established at the outset, this suggests that the terms may mean the same thing to him. Ben referenced *collaborative environments* where a number of participants described a service that operated without hierarchies but recognised the phrase 'interprofessional' was one he wouldn't have used until he began his studies. All participants used the term multiprofessional within their accounts of what simulation is and applied this term to

the non-technical or human factors learning but like Greg above, wouldn't use the term explicitly when stating learning outcomes. Sarah used the phrase *pan-professional* in reference to the group of professionals who reviewed serious untoward incidents as part of her hospital governance structures. Matt talks about studying a module as part of an educational masters course that addresses interprofessional learning theories and uses the term in reference to learning, applying the term multiprofessional to describe a grouping of learners, rather than the learning activity itself. The interprofessional educational preparation described by Matt in this study, is explored in Chapter 9.

Defaulting views are also shaped through personal perspective and in this first example, Margaret is using her own perspective and draws on her previous practice to shape what she expects should happen rather than what is performed and is subsequently available to explore. Margaret below expresses expectations of how a team should be, and how the team should be organised, which inevitably shapes the lens she uses. As Margaret uses a hand-held video camera, described earlier, this selective preservation of the action serves to reinforce this perspective, deciding which scenes she wishes to present back to the learners, enabling her lens to now become a shared default view.

> I'm trying to look at them and say in my head these are the roles that I think there should be and in my head if it was my team that's how I would organise them and I'm trying to see if they've organised the team in the same way almost.

When asked what shapes this view Margaret goes on to describe how what could be understood as her default view has developed. This appears to be drawn from her experience as an educator but also her role as a medical consultant.

Largely from experience and having watched the similar scenario acted out over time really and so you build up an idea

Margaret, Sally and Ross all describe how in their simulation events, doctors are expected to adopt a leadership role within the scenario, driven by the overall aims of postgraduate uniprofessional medical education. As these types of simulation are frequently run, this scenario is well-rehearsed for both the medical learners to adopt and any other professionals involved to support. This narrative as an experience presents, to all learners involved, default views of how doctors practise. Namely doctors act as leaders and are followed by others.

At the end of the day doctors have to take ultimate responsibility for what happens and therefore they have to if you like accept that responsibility,

In simulation, team performance is often described in terms of leadership and followership (Hunt, Shilkofski, Stavroudis & Nelson, 2007) to help identify active roles within the team when direction is co-ordinated around a clinical case. Ross provides

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an example of his view of what he believes nurses should do and interprets it as a lack

of followership in the simulation, namely the nursing groups' inability to actively follow

a leader. Active followership is a term used in team training to depict how a leader

and the team can proactively interact. Whilst Ross recognises that the nurses here

start to address a need and organise themselves, he describes their action through the

lens of the medical staff, his professional background. He interprets the nursing

activity in sorting out an issue as poor followership and perhaps, not considering if his

understanding of nursing roles in this type of clinical situation is useful. His quote

below illustrates an assumption he's made around the role of nurses. Significantly

when he designed this scenario he when asked didn't report consulting nursing staff.

His quote below illustrates how an assumption shaped by his default view of nurse

performance is something that shapes the debrief:

> So the nurses perceived that the checking and collection of blood transfusions is their
> role which is traditionally the case that they were huddling doing that. The team
> leader was focusing on the patient and the overall scene, and I am not sure that was
> anticipated they were forming of a blood transfusion team separate to the team
> leader am not sure that that was announced that it happened because they took that
> upon themselves
>
> Ross

Sally, Ross and Margaret all used generalised views of professional groups and

Margaret below describes 'midwives' as a generic group that need 'protection' in the

context of learning with and from doctors. In wanting to help midwives to feel

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welcome, the environment is adapted to not be as challenging for an assumed view

that is generalised to all midwives. It appears that a default view of 'doctors have a

more significant role' justifies the simplification within the experience for the midwife

group who need protection from the same level of scrutiny. This view appears to be in

conflict with ideas of social and psychological authenticity within the simulation, as the

interaction that might occur between midwives and medics is modified rather than

allowed to emerge and then facilitated within the action the learners were engaged in.

> Yes, so when I'm doing the critique I will always be more critical of the doctors than
> the midwives because they have to step up to the mark don't they, but also it's about
> the midwives not feeling 'oh she was really nice to the doctors and she gave me a
> really hard time'.
>
> Margaret

Margaret and Ross's quotes illustrate how they operate within specifically held

expectations about how professions should behave: default views of professional

hierarchies, but also a generalisation as individual professionals are viewed to be

representative of a general view of the profession.

Matt below recognises how this generalised view of professional groups happens

within his educational faculty and challenges this as naive, namely that he 'as a nurse'

can be representative of all nurses:

> I've had medics say to me 'but I don't know how to be a nurse so I don't know how to
> de-brief them… well I don't really know what a nurse's job is in A & E they're

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completely different to what they are on a geriatric ward so I don't know what to say
to that particular nurse either!'

Matt

Default views described above are shaped from personal perspectives and experience and are seen to be defined through professional stereotypes. Ben also has a default view, he acknowledges the one described above but 'default' in his context is shaped by the different cultural practices within his organisation.

For a lot of the nurse/doctor stuff, my underlying position is you have to work together, you have to work in parallel, you have to do things simultaneously and not wait for someone to tell you what to do… it's a very flat hierarchy here, in that way so the culture emphasises equality and so it carries forward into education as well.

Ben

Ben doesn't describe a critical engagement in holding an alternate default position to his organisation, his view fits within the organisational culture he describes. Matt was the only participant who described a reflective process around his own assumptions. In the two quotes below he questions the origins of his default view. He describes being critically reflective of his role and the underlying assumptions he makes and tries not to project these onto others. It appears that he is aware of holding what this study has termed 'default' views, and explicitly talks about how he challenges, and actively reshapes the views he holds.

I often reference the two drug errors that I made clinically and how I think they would
or wouldn't have happened if processes had been done slightly differently. I'm trying
to move away from that because I've got my own biases almost from how it affected
me,

Matt

I've had this debate with myself a few times when I'm cycling or running home or
whatever afterwards and I just think 'do I focus on the world according to <Matt>, do I
focus on how I think teams should perform to work more effectively based on my own
bias from when I used to work clinically?'

Matt

Participants in this study all describe some level of awareness of their own defaulting

views and employed techniques to reduce their subjectivity such as using advocacy

with inquiry educational approaches (Rudolph, Simon, Dufresne & Raemer, 2006),

used to elicit a non-judgemental style during debrief. How debrief was provided

within their education faculty varied as participants (Sally, Margaret, Greg and Matt)

discussed difficulties when debriefing technical elements of learner performance that

might be located around a profession-specific activity. Noticeably a contradictory

dominant view was held amongst participants (Greg, Sarah, Margaret, Ross and Sally) a

view that held that 'whilst not important', debrief was often provided uniprofessionally.

In considering simulations' efforts in human factors learning to flatten hierarchies, and

as described in the previous chapter, the role of debrief being promoted as a

transformative moment to inform future practice, there is a reported transgressive

barrier of debriefing interprofessionally. Participants in this study appear to say that there is dominant view that whilst simulation could be debriefed interprofessionally, it is expected that it will be debriefed uniprofessionally. Greg in his interview chuckles at the thought of how professional groups are wary of debriefing each other, he goes onto described below:

Now I'm laughing as I'm saying it makes perfect sense and I am thinking have I seen this in practice, and I think I have I think I've seen doctors who are scared to death of debriefing nurses and they have then got nurses involved in the debrief but if they are learning interprofessionally from and about each other then I really don't think that that should matter and I think I would be quite nervous about just having me and senior doctors or nurses in the room so...

Greg

ME: Why would that be, why do you need a colleague from another profession?

It's almost not the done thing, but as I am thinking about it now thinking that it should be okay. It's is nice to have a couple of people in the debrief but there is no reason why a couple of nurses can't debrief a team of senior doctors and nurses, But on the other hand from a credibility point of view Drs often want doctors involved in doctor education I think it's just a mind-set, I don't think I'm just confusing things from my experience it could be something that gets in the way.

Greg

Greg describes accepted conventions in the delivery of simulation, how a mind-set prevails and taking a different approach wouldn't be credible to participants. Greg notices a dominant perspective and describes how he views these influencing

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opportunities to learn interprofessionally, but that learners often support maintaining a uniprofessional debrief.

This second sub-category illustrates defaulting views in action and how these are shaped by the concerns and influences of the participants. The default views they employ are influenced notably by a passive engagement with pervasive dominant perspectives shaped by their own professional role, background and context of simulation. Noticing default views is difficult, but there are two cases in which this passive engagement didn't occur. Firstly, Ben, who notices that the different views in workplaces other than his own are prevalent, noting that his workplace culture is different. Matt also engages more actively describing a critical engagement with his simulation practice that influences his default view, changing it to an interprofessional gaze. These accounts from Matt and Ben are further explored to describe the employment of an interprofessional gaze, which is integral to the actions of a simulation dramaturg, the core category in this study.

9.4   SUMMARY

This chapter has presented findings relating to what influences default views and how this view shapes educators' actions such as curating content for debrief. These findings suggest that whilst some participants noticed dominant influences in their practice, they also defaulted to individual ways of knowing and this influenced how they worked. Their accounts show that a critical engagement with default views is

difficult due to its pervasive nature and the complexities that facilitating the debrief demands. Their accounts reveal conflicting perspectives often held concurrently, namely wanting to challenge stereotypes through human factors education yet enforce these stereotypes in their script writing. Participants notice default factors such as the significance of funded medical education compared with different structures in place for other learners but appeared not to critically engage with resultant impact of these different structures in how they organise their work. This factor helped to create specific context when using other professions as props in simulation with consequences.

10 THE SIMULATION DRAMATURG

I do everything; I'm trying to prepare people for doing stuff in real life by creating an experience which closely mirrors what they might face.

Ben

10.1 INTRODUCTION TO THE CHAPTER

The core category in grounded theory is essential, to integrate categories within a framework grounded in the data (Hallberg, 2006), helping to depict participant experience into a theoretical explanation (Charmaz, 2014) see Figure 10 below.

FIGURE 10 - THE SIMULATION DRAMATURG

In this study simulation educators worked to devise, deliver and debrief simulation with a goal of teamwork and thus safer patient care. In theatrical terms their work fulfils three roles: the playwright, director and critic, as they prepare, direct and review 'the show', which is synonymous with a unifying role often held in theatre companies:

the dramaturg. The dramaturg role is embodied by the educator when an interprofessional gaze is incorporated into their repertoire. The inclusion of this gaze enhances their practice to adopt a holistic critical engagement when providing simulation to embody the role of a Simulation Dramaturg.

10.2 THE INTERPROFESSIONAL GAZE

In this study exploring how interprofessional ideas and approaches are noticed or employed helped to establish the notion of an interprofessional gaze. This gaze when levelled appears to reconfigure a default view. When a default view or a reconfigured interprofessional gaze is applied this shapes the simulation, guiding the learners in particular ways to re-experience practice and encourage transformation of performance in the workplace through this lens.

In this study as described earlier, defaulting views of participants are seen to be shaped by dominant perspectives, which both inform and are maintained by: organisational structures; professional socialisation and educational background. Mulvey (1997) argued that interpretation of film is reinforced by pre-existing patterns of fascination (the male gaze). This concept when applied to simulation illuminates that default perspectives re-enforce existing patterns of stereotypical team behaviours. These featured in the backdrop, guided action and informed the direction of the cast. The default view acts to therefore support pre-existing patterns of 'fascination' in team behaviours, shaping simulation structures and helps to describe the some simulation

practices. In this study however there were times where dominant pervasive perspectives were noted, for example when Ben and Matt described their work.

Ben described access to simulation in his organisation as equitable for all learners. This was irrespective of professional backgrounds and funding arrangements, facilitated by organisational structures that built simulation into the working week. Ben didn't describe providing interprofessional simulation, but his default view was orientated to the culture of his workplace, he described this environment as 'just', 'equal' and 'non-hierarchical', notably working in a 'dream inter-disciplinary environment and training'. Ben has a default view aligned with his workplace, he participates in interprofessional working and his simulations replicate this practice. Ben doesn't describe any personal critical processes to reconfigure his default view to address structural or hierarchical features. It would appear that the dominant perspective in his organisation shapes a default view that influences simulation provision in a different way to others in this study. Within his practice, organisational structures create opportunities for interprofessional learning; groups are treated equally and learning is situated around the team goals rather than any specific profession. Consequently there is space to develop social authenticity because this is how his workplace functions. Matt however did explicitly talk about interprofessional ideas and his accounts reveal that he is scrutinising his defaulting view in a way that Ben doesn't describe.

In Mulvey's (1997) terms the patterns of fascination that Matt uses are informed by theory drawn from interprofessional education. His resultant use of interprofessional theory re-constitutes his default view as he applies an interprofessional gaze to his practice. Participants described features such as organisational structure, funding arrangements and curriculum content that shaped their simulation practice. Matt also described conscious efforts made to provide interprofessional experiences. A sequence of quotes below illustrates how he modifies his practice, reflecting on learner evaluations to develop more inclusive scenarios. Feedback no longer includes the dissatisfaction he associated with uniprofessional simulation as he describes below:

> Yes almost like there was no reason for them to highlight it so it wasn't thought of. I've put what are their interprofessional needs, just yesterday we ran an IPE simulation day and in the debrief I try to refer to insight that people are making towards one another.
>
> Matt

Other participants mentioned educational preparation that they had experienced and deemed relevant to how they delivered simulation, including a postgraduate certificate in education (see Appendix 2 page 291). When asked about any educational theories they drew on to inform their practice every participant referenced reflection, experiential learning and techniques such as advocacy with inquiry as shaping their

simulation practice. Matt also described an interprofessional education module he had studied.

> …they've got a module that's focused on interprofessional education and that highlighted a lot, even just being on the course to be honest with other professionals, it's speaking to them and hearing their assumptions of you and then your assumptions of them.
>
> Matt

Matt later references the application of a mid-range theory 'the contact hypothesis' (Carpenter, 1995; Carpenter & Hewstone, 1996) used in interprofessional education and how he applies this. The contact hypothesis suggests that a number of conditions need to be in place to support effective interprofessional education

> I read quite a bit about that contact hypothesis and you see it in society all over the place and you see how it's rarely positive I tend to find, people always seem to find the negatives and use them sometimes to their advantage….because hopefully as a result of doing SIM {simulation} they get to learn a little bit about confirmation bias, looking at a de-fib, getting involved in getting focused on something, losing track of time, meanwhile there's still a patient that needs externally pacing. I think we managed to get through all that within about an hour and ten minutes so it was good.
>
> Matt

Matt continues to reference the influence of the contact hypothesis on his thinking and how these impact on his views. He describes how care could be delivered and it is interesting to note that he describes application of this view to his practice more

widely than simulation alone. This suggests that his perspective is informed by this view and subsequently his default view is configured, it is how he views his practice.

> I just think that in an organisation our size with so many different people involved in routine care of a patient be it a sick one or not there has to be a level of understanding about how each other works…that each professional person has an agenda that they need to fulfil …it's accepting that the physio has their own agenda and their own set of needs that they need to fulfil and actually they could be thinking that I'm being obstructive to their needs and it's just understanding each other's roles and where they're coming from, thinking that way (about theory) has changed me a lot.
>
> Matt

Both Ben and Matt appear to refer to 'interprofessional' as a counterpoint to other default views they are aware of. Ben illustrates this when talking about other workplaces as discussed in Chapter 5, *Preparing the Performance* and Matt as he describes how his default view has been reconfigured in light of new insights gained from his studies. When an interprofessional gaze is incorporated into educator practices this reconstitutes their approach to simulation. This shift is symbolised in this study through the core category of the Simulation Dramaturg. This term helps to articulate a different type of practice employed to realise the implicit goals proposed by the term 'interprofessional simulation'.

10.3 THE SIMULATION DRAMATURG

Firstly, it is important to discriminate between this study's interests in the educator role as a dramaturg, rather than the performance of the individuals as described in Goffmans' sociological dramaturgy (Goffman, 1978). Here the role of dramaturg can be described as having the following three influencing features:

- Determines the aesthetic architecture of what a piece of dramatic literature actually is (analysis)

- Discovers everything needed to transform the inert script into a living piece of theatre (research)

- Applies knowledge in a way that makes sense to a living audience at this time in this place (practical application)

(Chemers, 2010, pp. 3-4)

The dramaturg is involved in translating to others the aims and goals of the performance and has a role at every stage of *Putting on a Show*. A theatrical dramaturg, therefore, works alongside the playwright and director to co-construct a performance. The notion of the dramaturg provides a unifying identity to the simulation-educator role. Participants described working as a creator of scripts (playwright) coordinator (director) and reviewer of performance (critic).

Dramaturgy is seen as synonymous with the totality of the performance-making process and these three roles in theatre are unified under the dramaturg influence

who acts with the totality of performance in mind, just as simulation educators address each stage of the simulation event. The unifying functions of the dramaturg in relation to simulation signifies how the default view is applied to the totality of this practice, just as a theatre dramaturg works throughout a production lifecycle. The theatrical dramaturg selects and prepares appropriate scripts for performance advising directors and actors; and often the audience. They act as historian, interpreter and playwright, offering directorial support and act as 'critics of works-in-progress' (Schechter & Cardullo, 2005). The practice of dramaturgy requires the ability to initiate, sustain and develop clear conversations about the purpose of the performance. In this study this purpose was effective teamwork and safer patient care. Ultimately the dramaturg both acts to describe how the composition of work is engaged with *and* provides a critical discussion of how the composition is applied (Turner & Behrndt, 2016).

The dramaturg ultimately shapes the simulation, guides the learners in particular ways to re-experience practice and encourage transformation of performance in the workplace from the perspective provided by an interprofessional gaze. Where the interprofessional gaze is applied to the educators' default view and their dramaturgical practice, opportunities for transformational interprofessional simulation are enabled.

10.4 SUMMARY

This chapter presented the core category within the study of *The Simulation Dramaturg,* a unifying role that educators adopted in this study when *Putting on a Show* to provide simulation-based healthcare education for more than one professional group.

11 DISCUSSION

The problem then, is to find ways of theorising the possibility of personal and social changes and transformations through drama experiences in ways that go beyond advocacy and rhetoric and which acknowledge the relativism of context.

(Neelands, 2004)

11.1 INTRODUCTION TO THE CHAPTER

This study set out to explore the facilitation of interprofessional learning through simulation and how it is perceived and understood by those responsible for delivering it. The research asked how educators provide team-orientated simulation to more than one professional group, resulting in the development of a conceptual framework entitled Putting on a Show (see Figure 6 below). The preceding five chapters presented the findings of Preparing the Performance; Rehearsing the Performance; Reviewing the Performance and Recognising Default Views. A core category of The Simulation Dramaturg, a central concept that explains all categories generated was also provided. All categories were developed by drawing on literature to substantiate or illuminate them, an analytic technique employed generally in grounded theory approaches and occurring concurrently alongside data generation and the writing process (Charmaz, 2014). This is illustrated in Figure 6.
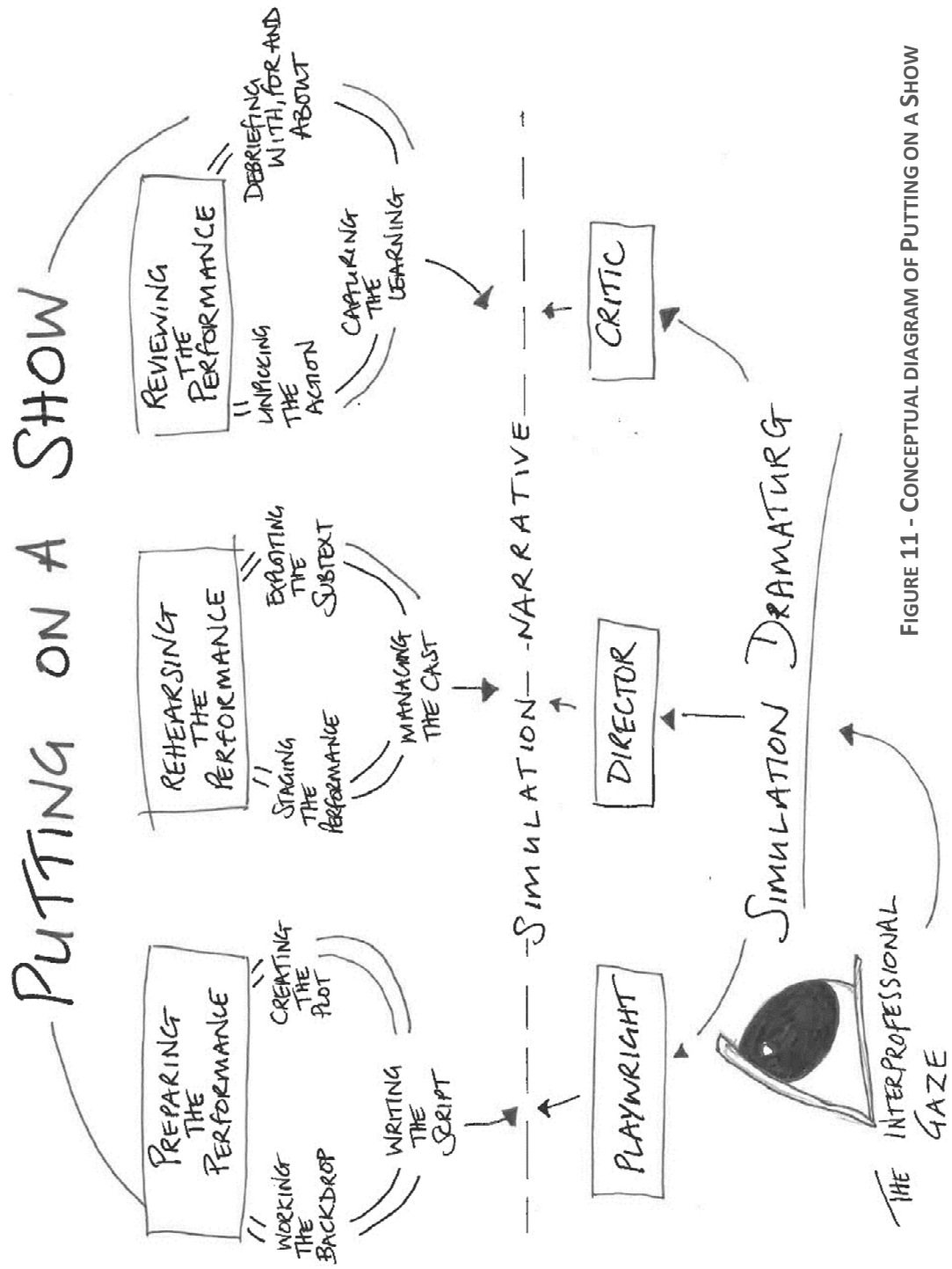
FIGURE 11 - CONCEPTUAL DIAGRAM OF PUTTING ON A SHOW

This chapter provides a discussion of these findings and the key issues arising from the conceptual framework of Putting on a Show. The significance of the study findings is addressed and considered in the light of extant literature, to contextualise and illuminate the contribution of this study. A summary of the key findings are provided below and are explored in the remainder of this chapter.

This study found that educators use dramatic and theatrical approaches in their practice. They use dramatic effect, in how they stage, sequence events and plan the simulation event. This adds to knowledge of where theatre practices and simulation intersect in the literature to include both metaphorical representations and acknowledges that theories about performance can inform simulation. Raising awareness of performance theories can also address practices noted in this study, of simulation faculty playing stock characters, which was seen as counterproductive when trying to achieve sociological authenticity. Use of Faculty staff requires consideration to avoid dynamics that are counter-intuitive to the shared goals of simulation and interprofessional education.

A significant finding in this study is that educators work within default views of practice. Holding a default view may not be acknowledged, as it is shaped by dominant pervasive perspectives that are contextualised to individual workplaces and within professional, organisational and structural features of health care and simulation education more generally. This study proposes that default educator perspectives require acknowledgement, as the educator role in providing simulation is to create

transformational learning that consequently changes team performance. Therefore not acknowledging default views could also prohibit transformational goals or reinforce stereotypes and barriers to effective interprofessional working for individuals or teams.

This study found a resonance between the role of a dramaturg in the theatre and the functions of a simulation educator. By considering how a dramaturg functions in the theatre helps to conceptualise a critical praxis that can be adopted by educators. This praxis helps recognises where a default view is held. This praxis informed by theory helps to apply an interprofessional gaze to simulation and in turn shapes the role of an interprofessional simulation educator. Threaded throughout the findings in this study is the premise that the goals of team simulation can only be realised through the application of interprofessional approaches to simulation.

11.2 RELATIONSHIP OF PERFORMANCE AND THEATRE STUDIES TO SIMULATION

A major finding of this study was that participants used terms synonymous with the performance arts and the theatre and through the analytical processes of grounded theory (Charmaz, 2014) and when asked, participants described themselves as directors, stage managers and critics. From their accounts it was clear that employing a metaphorical orientation to simulation from theatre and performance studies

created a shared language but also helped to articulate roles, functions and concerns that these educators had within their simulation practice.

Employing metaphors in this study was strengthened by a culturally and historically shared understanding of the context of theatre and meanings of the word performance. During simulation-based education, learners perform within a scenario. This act of performing concerns both task and action being viewed and reviewed by others. Performance and theatre are terms that are deeply embedded within Western language and culture, viewed as methods that can show and tell audiences something new or individually profound, originating in Western culture from centuries-old Greek literature. Aristotle provided one of the earliest references to theatre and performance: 'The Poetics' and is viewed as providing a cornerstone of the Western critical tradition (Curran, 2015). 'The Poetics' continues to provide a critical analysis of the forms within drama, codifying the aesthetic understanding (Schechner, 2003). As such, many of the terms are concepts that are used in everyday language and were noted in data generation as these terms featured as part of the participants' simulation language and included in the analysis of data in this study. This finding is supported by extant literature where dramatic concepts are employed in the literature (Robert & Greene, 2011).

Aristotle argued that the 'really real' was indwelling in us and through the act of theatre, actions are imitated (Curran, 2015). This mimicking of real life supports a logical chain of consequences flowing from actions, so that an audience might come to

understanding more about themselves or their context as a result (Schechner, 2003).

Just as Aristotle wanted to arouse and understand emotions to avoid their harmful effects on the individual, this study has found that theatrical practices employed by simulation providers create a space to perform and review to avoid harm in future practice.

11.2.1 PERFORMANCE AS A WORD CONVENTION

In the context of simulation, the multiplicity of meaning of 'performance' is important and supports utility of the conceptual metaphors discussed in this study. Performance is commonly used in reference to describing clinical work processes of practitioners in action or as a completed act and is frequently used in reference to team simulations when considering team processes. Performance has several meanings (Oxford English Dictionary, 2008; Arts, Chalker & Weiner, 2014) and all three provided by these sources can be applied in this context:

•in performing a task or skill,

•the achievement of a task as measured against a standard,

•within the action involved in presenting a form of entertainment.

Simulation facilitates learning through performative action (Alinier, 2007) and the parallel language used in performance and simulation is present in the literature. Sociological dramaturgy (Goffman, 1959) has been applied to simulation (Taylor, 2014),

but this study goes beyond metaphorical employment to draw on theatrical practices having utility in simulation practices.   Aspects of this dramaturg role are reflected in discussions of simulation educators being like a director (Roberts & Greene, 2011). The next section explores the synergy across theatre and simulation paradigms through literature, grounding both metaphor and analogy of performance and theatre within simulation practice, reflecting the findings of this study.

11.3 THE SHARED PURPOSE OF CONTEMPORARY THEATRE AND SIMULATION

As the performative dimension of simulation is essential to learning (Roberts & Greene, 2011), simulation literature can be viewed as attempts to analyse the dramatic processes underlying the development of learning opportunities to enhance the performance of individuals and teams in healthcare settings (Sanko, Shekhter, Kyle, Benedetto & Birnbach, 2013).

Performance techniques such as role play are used in healthcare education to support and develop communication, empathy and critical reflection skills (Gao, Peranson, Nyhof-Young, Kapoor & Rezmovitz, 2018; Crawford, Brown, Baker, Tischler & Abrams, 2015) interprofessional learning (Cornes, Norrie & Manthorpe, 2016; Villadsen, Allain, Bell & Hingley-Jones, 2012). Performative actions are conceptualised in experiential learning (Kolb, 2014) and experiential approaches underpin simulation-based education in its many forms including facilitated use of psycho-social drama to explore

behaviours, thoughts and feelings (Roberts & Greene, 2011). Neelands (2004) notes

that, 'one can trace a faith in the idea that through artistic transformations of the stage,

society itself can be changed' (Neelands 2004, p.49). Authors suggest that simulation

(Clapper, 2010) and theatre (Gao et al., 2018; Crawford et al., 2015) both provide the

potential for personal and social emancipatory goals to be realised. There are

numerous theatrical techniques described in the simulation literature (Roberts &

Greene, 2011; Sanko et al., 2013; Nelles, et al., 2018; Crawford, Brown, Baker, Tischler

& Abrams, 2015). One technique used widely within healthcare and relevant to

simulation's transformational goals is that of Forum Theatre: a participatory technique

to facilitate awareness of cultural competence, empathy and emotional intelligence

(Nelles et al., 2018; Middlewick, Kettle & Wilson, 2012). This theatrical approach,

based on the work of Boal (Boal, 1979; Boal & McBride, 2008), recognises theatre as

holding a power drawn from its form as well as its content. Boal (1979) viewed live

performance as holding all the radical potential for change through participation and

conversely the power to reinforce dominant power structures and narratives. Clearly

the nature of the writing, performance, direction of the piece and its deconstruction, a

feature of Forum Theatre, shapes the message, experience and future interpretation

of the work by both the audience and actor (Boal & McBride, 2008). These features are

synonymous with simulation, namely the design, delivery and debrief within

simulation (Jeffries, Rodgers & Adamson, 2015). Whilst Forum Theatre uses different

drama pedagogies, there is a shared aim with simulation in providing insights to

dominant narratives that can be shaped and changed by the learners within their performance.

This study is situated within a body of literature that validates the performance tropes used in this study (Roberts & Greene, 2011). Significantly this study extends these tropes and suggests that performance practices correspond closely to simulation educator practices and this understanding can help to articulate how an interprofessional simulation practitioner functions. Performance theories help to explicate how simulation educators, when Putting on a Show, are creating stories to be retold, in practice acting as a playwright, director and critic would. Significantly this study found that stories, roles and a cast created by the educator subsequently set parameters for learners to perform within that are not always foreseen or desirable when the aim is to foster better functioning teams in practice. Simulation educator functions have not been considered in this way before; the analogy of playwright to create powerful narratives helps to illuminate both existing, or importantly, desired social practices in achieving the shared goals of interprofessional and simulation-based team-orientated healthcare education.

11.4 WHEN PUTTING ON A SHOW

This study found that a playwriting perspective helpfully described how educators created simulation stories to re-construct and deconstruct experience to explore shared meanings of practice (Schechner, 1973). The nomenclature playwright

captures the function of this role. The term 'wright' describes a builder or crafter of something more than merely producing text but the crafting of stories that detail human activity to promote understanding of the human condition (Leach, 2004). The playwright thus provides the impetus for a performance, the script captures this detail: the audience, participants and the purpose of action, each having levels that articulate the staging, the drama performed, and the subtext contained within (Leach, 2004).

It can be said that different playwrights embody different genres and as such their purpose, intent and audience shape their production (Cole, 2001). In the theatre the dramatic script provides a 'blueprint for theatrical production' (Aston & Savona, 1991, p. 142) serving as an interior map to the performance (Schechner, 1988), just as simulation scripts contain details for the creation of a performance (Lane, 2010). Willis, Barton and Shrivastava (2011) consider how simulation scripts can be compared to writing sit-coms, soap operas or dramas, inferring either simplistic, superficial scenarios or complex interactions are created. This is echoed the case of interprofessional learning that inherently addresses complexity. Thistlethwaite (2012) asks that we consider the type of 'drama' in sociological terms that other modes of interprofessional learning offers.

Gaba's (2004) definition of simulation suggests that a substantial aspect of the real world needs to be evoked to create an authentic interactive experience. The educator as playwright needs to validate believable authentic characters and be capable of empathetic imagination (Case & Brauner, 2010; Munt & Hargreaves, 2009). De

Weerdt, Hovelynck & Dewulf (2009) recognise that educators, when defining the lesson to be learnt, based their scripts on their own blueprint of reality, arguing for a need to continuously consider the 'choice of reference point', (De Weerdt, Hovelynck & Dewulf, 2009, p.141) just as the playwright selects the purpose and intent of the play. This is so suspension of disbelief is realised for the learner through these theatrical narratives to create immersive simulation (Smith, Edlington, Lawton & Nestel, 2014).

As also found in this study, Bruner (1991) identifies narrative stories as powerfully communicating meaning. Messages and dramatic structure such as a plot can reveal analysis of intention within actions to create a relatable sequence of events (Scholes, 1980). Stories construct meaning for learners in reference to themselves, others and their environment. Simulations provide 'fiction contracts' (Dieckmann, 2009, p.74) that contribute to the social practice of simulation and clinical life (Dieckmann, 2009; Dieckmann, Gaba & Rall, 2007; Johnson, 2004; Rystedt & Lindwall, 2004). These aim to 'influence reality not merely reflect it' (Boal, 1979, p. 167). The challenge for the educator as playwright is to therefore ask, 'from whose reality am I creating this work?' (De Weerdt, Hovelynck & Dewulf, 2009, p.14).

The contribution of this study in describing educators as a playwright, illuminates how influential simulation design is, as the narrative-potential of the script provides the impetus for learner interaction and shared story creation. This is significant as subsequent reinterpretation of simulation experiences occur in practice. Considering

this finding also supports the assertion made in this study, which is revisited throughout the chapter, namely that team simulation should always be interprofessional. Designing narrative without an interprofessional perspective requires careful consideration to avoid unhelpful stereotypes for example when narrative context and structure have significant impact on the performance experience (Scholes, 1980; Bal & Van Boheemen, 2009).

11.5 DIRECTING THE CAST, CRITIQUING THE SHOW

In support of the utility of theatre practices in simulation, this study found that the role of director resonated with the way the participants reported staging and running simulation. The directorial role guides learners to devise and improvise action anchored around the script. The context of the simulation settings; availability of resources; space; time; learner access and their familiarity with the learning mode, were navigated to realise simulation goals.

Significant in this study was recognising how the educator as director created environments, selecting features and sequenced the performance in a way deemed important. For example, Sally using a storyline of a baby with deteriorating health or the point at which Ben commenced simulations as his learning environment was constrained to a wooden box, controlling and constructing the physical environment (Curran, 2010). Whilst considering narrative progression in simulation, other theatrical practices identified in this study have not been previously addressed in the literature.

One activity concerned the creation of the ensemble and significantly a supporting cast and a lead protagonist. This happened where faculty are used in the simulation to occupy roles. Sanko et al. (2013) encourage using method-acting approaches from Stanislavski to help faculty prepare for performance, as the method is seen to engender empathy with characters aiming to increase psychological fidelity and mitigate against simulation artefact. However Smith, Gephardt and Nestel (2015) caution against inaccurate portrayals by faculty acting out roles as these are limiting and disruptive to transformational learning.

This study extends this concern in ways not previously described to identify that where educators act out roles creates a further disruption to simulation's transformational goals, namely where the supporting cast and lead dynamic is established, and one dimensional or stock characters are created. This study revealed that sociological features of power and hierarchy, where established within this dynamic, are consequently embedded into the simulation design. As such, these nuanced social dynamics are validated through the design and excluded from the potential exploration of human factors that simulation is seen to offer (Sharma, Boet, Kitto & Reeves, 2011) as they are structurally maintained. Faculty acting out roles pervasively maintained an imbalance where a lead protagonist acts as 'themselves' with a supporting cast (the faculty) acting as 'other'. As meaning is acquired in both drama and simulation through engagement with its practices (Boal, 1979; Dieckmann, Molin Friis, Lippert & Østergaard, 2012), simulation providers tend not to ask their learners

to be 'other', but to be themselves, so that the change is transformational to their own practice (Dieckmann et al., 2012). Significantly, where educators design and direct a lead and supporting cast dynamic they unavoidably create disparity and some roles become more important than others. This study found these structurally designed features were further embedded, for example when study participants acted as supporting cast roles outside of their area of expertise (Greg, Matt). Nursing participants were asked to be another type of nurse for the simulation, embodying a stock character. This illustrates a structural devaluing of their expert practice, then experienced by other professional groups. Whilst filling roles assures simulations can run, the resultant subtext of a predominantly medical protagonist supported by nurses acting outside of their expertise, socially reinforces a particular relational dynamic, in spite of literature cautioning against playing stereotypes (Smith, Gephardt & Nestel, 2015). Furthermore, when a protagonist has a fully participatory experience of simulation and others are 'play-acting', often to support uniprofessional team leadership learning outcomes, the social practice of simulation (Dieckmann et al., 2012; Dieckmann, Gaba & Rall, 2007) communicates structural and power relationships, maintained through curricula (General Medical Council, 2016; Purva & Nicklin, 2018). As such, simulation is placed within the social activity of professional groups differently, and this difference is reflected within the organisational structures where practitioners work (Health Education England, 2018) contributing to what is experienced through simulation.

This plotline of lead and supporting cast is echoed in the Pelletier and Kneebone (2016) study of numerous 'interprofessional' simulations. In their study they applied fantasy narrative techniques from psychotherapy to videoed simulations to plot out what constitutes reality in work, and whilst they note that the narrative always addressed clinical work, it is clear from the excerpt below they also allude to this social dynamic being played out but to which they did not draw attention:

> The hero was played by whichever profession was being trained: courses for anaesthetists idealised anaesthetic intervention; courses for surgeons idealised surgical intervention; courses aimed at junior medical trainees demonstrated the power of their professional capacity to save patients, and featured seniors and nurses as secondary characters within the drama. One course only departed from this trope: aimed at nurses, participants were called on to respond to multiple, relatively stable patients (rather than a single critically ill one) and ongoing obstacles that were not resolved. By virtue of this narrative structure, the role of the Herculean hero was replaced by that of the Sisyphean worker, a difference which perhaps throws some light on the different organisation of desire in medicine and nursing.
>
> (Pelletier & Kneebone, 2016, p,193).

All participants in this study described barriers when facilitating opportunities for individual learners to develop practice within a team context. Barriers were navigated, managed or passively maintained, for example when needing a clinical team available for a medically orientated team simulation, as suggested in the Pelletier and Kneebone (2016) quote above. Simulations in these circumstances presented a dichotomy: a medical simulation leading a team, rather than a team simulation that required a

leader. Whilst simulation educators endeavoured to overcome professional

hierarchies, behaviours and accepted practices to facilitate individual and group /social

change, at the same time they also maintained and enabled structures that normalised

a professional dynamic that simulation seeks to overcome. These structural features

limited the potential of the educator–as critic in debrief to surface individual and team

practices that can enhance patient outcomes through a reflective dialogue (Hart,

McNeil, Theodorson, Kriti & Scott, 2012).

The findings of this study identified that educator practices must include an ethical

dimension when providing simulation. This ethical requirement shapes an authentic

portrayal of interactions as team simulation mythologises clinical practice (Barthes,

1957 in Pelletier & Kneebone, 2016) and contributes to accepted professional social

practices (Diekmann, 2009). The ethical practice of the simulation educator as

playwright, director and critic could help to democratise simulation's transformational

potential and, as proposed in this study, re-centre simulation around interprofessional

principles even when driven uniprofessionally. Recognition of this ethical effort when

Putting on A Show, includes questioning the gaze educators apply to their practice,

conceptually described in this study as the default view.

11.6 THE DEFAULT VIEW

A significant finding in this study was how educator descriptions of their practice were

based around often unacknowledged perspectives and world views: conceptualised as

default views. The extension of Mulvey's 'gaze' (1997) and the work of Perry (2017) to describe a defaulting view is used to describe both realised and unstated educator practices. The default view conceptualised here, both figuratively and practically, captures how educators viewed and valued the impact of their practice.   Pervasive views by their nature can be difficult to notice, but even when a defaulting view was acknowledged the influence and reach of this insight was not significant enough to impact on the organisational or professional orientated structures educators worked within.   The next section includes a close reading of Bourdieu's (1990, 2000) concepts of habitus, field and doxa in relation to simulation educator practices and default views. Bourdieu's description of how social agents operate, supports how the concept of the default view illuminates organisational, individual and social structures that surrounded simulation practices. Furthermore, it could explain why it might be of concern when facilitating team simulation for more than one professional group that defaulting views repeat practices that serve to reproduce the same defaulting experience for all involved.

Weick (2015) suggests that trainers within organisations can work to influence organisational structures within the workplace. As previously noted in this study, simulation providers direct performances, actively selecting (and therefore discounting) content, punctuating this chosen content to enable the enactment of what they deem significant. This study found that these actions are constructed through their defaulting lens that shapes the translation of learning into practice.

The default view in this study referred to familiar processes or concerns that educators work with and were engaged in, being so familiar that they were often rendered invisible, unremarkable and commonplace. How these views shaped simulation practice was therefore not always articulated. Where the default views were noticed (e.g.Matt) simulations were altered to equitably address learner need, but organisational features that maintained a default view remained; being structurally embedded within simulation practices. Hierarchical and uniprofessionally orientated structures were highlighted by Ben who compared the absence of these features within his organisation to other workplaces. Whilst other participants acknowledged the impact that organisational structures had on simulation such as funding and access, they did not describe their dissatisfaction with these arrangements. The influence of structural and organisational features of simulation were not considered, or accepted as convention. Instead pragmatic approaches were adopted often locally, to meet simulation goals. Bourdieu's work on structural inequalities supports the findings of this study and helps to describe the socially and professionally mediated relationships between structure, individual practices and values.

Bourdieu (1990, 2000) considers structural inequalities, using the terms 'habitus, doxa and field' to provide an analysis of social relations within wider discussions on cultural capital. Bourdieu developed these ideas in relation to the arts and in particular, the production of culture through various media (Jenkins, 2013). Habitus is shaped through socialisation, both personally and professionally, describing an individual's

support and maintenance of the status quo within which they operate. The actions

and responsibilities of being a simulation educator can be described as habitus, made

up of skills, values and actions that create an embodied practice within a wider social

practice of simulation (Diekmann, 2009). Habitus suggests embodiment, and

corresponds to default views, describing the process as 'an endless capacity to

engender products: thoughts; perceptions; expressions and actions-whose limits are

set by the historically and socially situated conditions of its own production' (Bourdieu,

1977, p.95) occurring within a context or field. When considering habitus, describing

what shapes simulation practice is important as these enables questions such as why

are taken for granted views or practices happening, and what created these views?

The concept of habitus can also be extended to the view educators held of their

learners, for example in this study, the vulnerabilities of midwives or how nursing

responds to simulation as a collective entity.

Bourdieu's (1990) interpretation of doxa corresponds with the notion of default view

as describing, taken for granted practices, that something 'happens, because it

happens'. Doxa corresponds to often deep-rooted established practices that

correspond to the dominant social forces (Jenkins, 2013). In this study it is illustrated

when providing and reviewing team simulation through a uniprofessional lens

(Margaret, Sally, Sarah, Ross and Matt). Concepts of doxa and habitus support why

default views are neither neutral nor passive stances when applied to simulation

educator practices. Bourdieu's work challenges neutrality, as doxa is reflective of

habitus and field in an iterative manner. Counterintuitive to team simulation outcomes, default views in this study illuminated where a perceived neutral or passive stance was held, this was situated within a habitus where structural norms are orientated to uniprofessional goals. These views in turn reproduce a constructed reality of practice aligned to a habitus that simulation as a learning mode attempts to address, namely flattening hierarchy and challenging taken for granted practices.

There was evidence in the accounts where educators' default views created a hierarchy of significance when reviewing learning, selecting and discounting content for debrief (Ross, Greg and Sarah). For example leadership, when learned through team simulation, was always orientated to medical leadership, or archetypal portrayals of professional groups by simulation faculty are used to deliver 'uniprofessional curriculum team simulations' (Sally, Margaret, Matt). These examples were viewed as acceptable practice, without recognising the potential impact of power relations within the simulation experience.

Bourdieu (1990) describes field as where individuals are socially located, where power and individual relationships are arranged often within hierarchies with rules and structures. How individuals interact with and within the field is shaped and maintained by habitus and doxa. Hierarchy gradients between professional groups are often considered a significant barrier to effective team working (Gergerich, Boland & Scott, 2018; Ziv, Small, Root & Amitai, 2000) and are therefore important components of both interprofessional and simulation education. Therefore, how educators manage

the experience of power and relations for their learners is important when

acknowledging that the field of simulation was substantially perpetuated around a

uniprofessionally located habitus and doxa. These uniprofessional structures, as

Bourdieu's sociological reading of field, habitus and doxa would suggest, impact on the

simulation experience. Examples illustrate this, such as (Margaret) being

demonstrably critical of medical learners, seeing them as capable of receiving criticism,

in comparison to nurse learners as an attempt to render simulation safe; rostering

non-medical learners to improve access to simulation (Sally and Margaret) or 'grabbing'

whoever is available (Sarah). Whilst these efforts address practical access to

simulation, they are contextualised within a default view, falling short of influencing

broader structural barriers within the field and consequently may not alter underlying

habitus or doxa of the educator. Awareness of how the field, habitus and doxa shape

practices as a simulation provider, is seen in this study to be pervasive, consequently

any subsequent re-focussing of default views held in the light of any new perspective

was difficult to achieve and maintain. For Matt, the use of interprofessional theory in

simulation appeared to only impact on his individual simulation events rather than on

the habitus and doxa of the wider educational department.

Bourdieu's reading of default views also helps to conceptualise why simulation design

and delivery, if addressing technical and psychological authenticity alone are not

enough, and that social authenticity is important. In this study sociological

engagement between learners was not overtly described, appearing difficult to

articulate and often appeared to be unnoticed. Subsequently where faculty staff played supporting roles (Margaret, Sally, Matt, Sarah, Ross) social authenticity was possibly rendered inaccessible, a view reflected in the literature (Thomas & Reeves, 2015; Boet et al., 2014; Reeves, 2011).

In the UK context, simulation is described as an important feature of post-qualifying education, and simulation educator development happens in an ad-hoc manner (Cheng et al., 2015). Simulation is commonly set up and maintained through post-registration medical deaneries and it is in this context that knowledge of how to be a simulation educator is frequently shaped.

Bruner (1991) proposes that we construct social realities through the creation of narratives. This study suggests that social practices of simulation educators could be realigned to achieve shared narratives of interprofessional education and simulation. The educators in this study worked with an array of complex issues, but there was an absence of consistent practices to address social efficacy or authenticity within the simulation experience. At times educators described an awareness of the impact of their practice on social authenticity but applied this awareness inconsistently. Simulation educators were reflective in their practice, highlighting awareness of structural practices, however their reflection did not appear to operate reflexively within and across the totality of the simulation event; consequently, default views of professional hierarchies, structures and perspectives on team practices remained hidden or passively maintained.

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If team simulation goals are to provide a sufficiently authentic representation of reality, how can educators provide enough psychological, technical and social authenticity to ensure a transformative democratised interprofessional focus is realised? Turning back to theatre studies, there is a role that helps to describe such a holistic engagement with the totality of performance: the dramaturg. This role encompasses every element of a theatrical production, working prior to the writing of a play to help situate and contextualise the impetus for the performance, create the staging, the theatre programme, researching the socio-cultural context that the performance inhabits and striving to create multidimensional perspectives within a performance of the work (Cardullo, 2005). The dramaturg, by the very nature of the role, is there to challenge the default views held by all parties engaged in the performance so that theatre can be transformative.

A significant finding in this study suggests that a simulation educator working as dramaturg could operate to realise the shared goals of simulation and interprofessional education through consideration of social authenticity alongside psychological, physical and technical fidelity. Alongside these activities, would also be the leadership to influence organisational and structural features of simulation, consequently addressing what constitutes the social practice of (interprofessional) simulation. The simulation dramaturg would hold a holistic view of the performance experience within the context of operational, policy and wider healthcare goals for safer patient care. Nyström et al. (2017) acknowledge the requirement to pay

attention when including interprofessional outcomes in simulation, acknowledging the need to be aware of uniprofessional historical teaching practices and cultural practices that might hinder interprofessional goals.

As authors have noted, less attention has been given in the literature to how a useful social reality is constructed through simulation (Thomas & Reeves, 2015; Boet et al., 2014; Reeves, 2011). This study supports these assertions and suggests that simply bringing professional groups together in a simulation environment is not enough, and designing for sociological authenticity should extend across the 'field, habitus and doxa' of simulation practices. Attention to how structures shape the simulations provided, was seen to be impactful. This study recognises that the setting shapes the educator default view and its impact on simulation should not be overlooked.

This study therefore suggests that if we consider the simulation dramaturg then we need to include in their repertoire use of interprofessional theory to realise simulation goals. The following section considers what constitutes the dramaturg role and, when interprofessional theories are utilised by simulation educator's and how their practice becomes that of a simulation dramaturg.

11.7 ENHANCING THE INTERPROFESSIONAL GAZE

In this study both Matt and Greg describe awareness of interprofessional education theories and Matt described employing these explicitly to enhance features of simulation. Where this occurred an interprofessional gaze was used to critically

reconfigure defaulting views. This notion of gaze is adapted from Mulvey's male gaze in film (Mulvey, 1997) and applied to the dramaturg role. When the simulation dramaturg adopts a critical praxis and applies an interprofessional gaze, they are personally empowered to challenge the doxa, habitus and field of simulation. Reflexive praxis is therefore inherent to the role of a simulation dramaturg to address physical, technical, psychological and social authenticity alongside organisational and structural features simulation practice occupies. If bringing learners together in simulation is not enough, what critical application of theory introduced by participants in this study can help to constitute an interprofessional gaze?

11.8 THE DRAMATURG

The findings of this study propose that the practices of a dramaturg operating with an interprofessional gaze describes the features of an interprofessional simulation educator.

Sometimes referred to as a literary manager (Copelin, 1995), the role of the dramaturg is both multifaceted and fluid, forming and re-forming to meet the needs of the theatre company, or of the production in question. A dramaturg may be called upon to complete a wide variety of tasks in the theatre; these may include, but are not limited to, the selection of a text for production; consultation with directors and actors alongside the ambition of educating the audience. (Cardullo, 1995).

To fulfil these duties, dramaturges serve as script readers, translators, theatre historians, play adaptors, or even playwrights, directorial assistants, critics of works-in-progress and talent scout. The resident dramaturg prepares the text for performance by translating or editing it, research the play's production history

(Cardullo, 1995, p. 10).

Thus, the dramaturg serves as a curator for the ideals, concepts to include socio-cultural and political dynamics and goals of the production, working to maintain the production's integrity operating across the field with many interdisciplinary and epistemological issues of translation (Lane, 2010; Copelin, 1995).

11.9 EXPLORING INTERPROFESSIONAL THEORY

Barr (2013) proposes that theoretical perspectives used in interprofessional education help to develop an 'inclusive frame of reference' (Barr, 2013, p.4) and theorising practice contributes to an evidence base for often resource intensive educational approaches (Fletcher et al., 2016; Reeves & Hean, 2013; Reeves, Perrier, Goldman, Freeth & Zwarenstein, 2013; Zwarenstein, Goldman & Reeves, 2009). A number of authors in the field have created useful guides to both pre- and post-qualifying interprofessional education, which are derived from a United Kingdom (UK) and international perspectives education. Barr, Gray, Helme, Low and Reeves (2016) explore pre-qualifying education and position interprofessional education as meeting workforce transformation and in the UK work around integrating health and social care services. Hean, Craddock and Hammick (2012) provide a useful overview and contrasts

several educational approaches and Suter et al., (2013) and Barr, Koppel, Reeves and Hammick (2005) provide a precis of common educational approaches drawn from diverse theoretical landscapes. These include organisational leadership; complexity theory; psychology; social psychology; learning theories and sociology. Whilst there is a diverse repertoire of theory to draw on in the interprofessional field as described above, notably in this study, Matt referred to 'the contact hypothesis' he had studied. Extending this initial introduction, the contact theory is now explored in greater detail. Using the initial impetus from a participant provides an opportunity to consider its application to the study more broadly.

From the field of interprofessional education the combination of contact theory, (Allport, 1954) social identity theory (Tajfel, 2010) realistic conflict theory (Sherrif 1966), and processes of attitudinal change (Pettigrew, 1998) are referred to as 'the contact hypothesis'. Each theory is briefly introduced before the utility of the contact hypothesis in simulation is considered.

Origins of the contact hypothesis can be traced to Allport (1954) who was interested in what occurs when opposing groups are brought together. Allport asserted that contact alone was not enough and proposed that certain conditions were required to dispel negative stereotypes and reduce hostility, so that prejudice in intergroup relations can be altered when groups met. Allport described several conditions required for successful attitudinal change:

- Equal status between the groups in the contact situation

- Common goals

- Support from authorities

- Cooperation with each other

Following a literature review by Hewstone and Brown (1986) the following factors were also added to Allport's original hypothesis drawn from social identity and realistic conflict theory, that include:

- Participants to have positive expectations of the experience

- Concern for similarities and differences

- Members of others groups are perceived as typical

- Joint work is successful

In social identity theory (Tajfel, 2010), self is conceptualised as a set of identities, that include group identities to which an individual belongs to. The theory explains why, under certain circumstances, people act in terms of their group membership rather than as individuals. Where an individual's sees themselves as part of a group, this becomes an 'in-group', and other groups they perceive not belonging to are 'out-groups'. Certain processes shape these group activities, such as perceptions, behaviours and attitudes. These include: how we categorise, for example by profession or gender as a way to understanding self; through identification, in holding

the views of the in-group, such as being a part of a political movement; or by comparison, where sense of self is affirmed as in-groups are viewed more favourably than outgroups. Social identify theory contributes to our understanding of how negative stereotypes are created as mechanism to maintain a positive sense of self in reference to others.

Work concerning discrimination between groups is further developed through realistic conflict theory (Sherrif 1966), where intergroup hostility is seen to occur because of conflicting goals, pressures caused by a perception of poor support from others, or limited opportunity due to hierarchy or social status. Realistic conflict theory, posited by several authors (Brief et al, 2005) and attributed to Sherif (1966) contributes to the theoretical foundation of the contact hypothesis, adding that overarching goals aiming to promote cooperation are more likely to create positive outcomes than equal status alone.

Attitude change as identified by Pettigrew (1998) adds to Allports' contact conditions by describing the processes that help create positive outcomes between groups. Learning about the out-group can help to challenge previously held views, dissonance created by new experiences of out groups can lead to behaviour and attitudinal change. Creating positive emotions related to groups exchanges can be pivotal in improve cohesiveness and the opportunity to reflect provides new insights both of in and out groups. These processes value facilitative processes required and describe the how and why of attitudinal change, required to promote positive outcomes.

Evaluations of the contact hypothesis model in interprofessional education at first glance, produced conflicting results. Carpenter (1995) and, Carpenter and Hewstone (1996) identified that when contact factors were present and proactively managed, then negative interprofessional stereotypes diminished. A number of studies have reported other outcomes when applying the contact hypothesis. Barnes, Carpenter and Dickinson (2000) and Furness, Armitage and Pitt (2012) described minimal changes in stereotypes, Ajjawi, Hyde, Roberts and Nisbet, (2009) reporting lower self-esteem, but authors note that some contact factors were missing and learners did not necessarily view 'out-groups' as typical. Barr (2013) views the utility of the contact hypothesis as tentative but recognises the value of social identify theory in helping to augment conditions in the contact hypothesis. Whilst the utility of contact and identity theories is viewed as only partially successful, they have been translated in the field of interprofessional education (Hean & Dickinson, 2005) and used as part of interprofessional curriculum design (Barr, 2013). Critiques of the model identify that the hypothesis presumes that it is contact that derives positive change, rather individuals with prejudice who might avoid contact in the first place and that all the conditions may not all need to be in play for the hypothesis to be proved. Authors note (Pettigrew, 1998; Hewstone, 2003) that change in attitudinal behaviour may persist outside the interactive setting. Indeed, long-term changes in attitudes, values and behaviours are difficult to claim from any educational intervention, which is true of both interprofessional and simulation-based approaches (Barr, 2013; Fletcher et al.,

2016). Whilst evidence of the contact hypothesis in practice is variable, the contact

factors described can be useful to interprofessional educators, and Mohaupt et al.,

(2012) support using contact theory in interprofessional simulation. Other studies

report managing the delicate relationship of out-group behaviours when providing

debriefing to learners of different professions (van Schaik, O'sullivan, Eva, Irby &

Regehr, 2016). Carpenter and Dickinson (2016) reviewed published contact studies in

interprofessional education and argued that contact hypothesis-informed programmes

can help modify stereotypes of self and other professional groups, but recognise

identifying which factors are attributed to changes reported, or those that facilitate

change remains unclear, but that absence of contact factors preclude attitudinal

change (Carpenter & Dickinson, 2016).

The educator as dramaturg in taking account of the contact hypothesis could carefully

consider organisational, professional, curriculum design, delivery and debrief of

simulation to assure an interprofessional experience is provided. Delivering the contact

conditions could contribute to the educator's repertoire to apply an interprofessional

gaze as the educator draws on contact conditions to re-frame their practice,

subsequently challenging default views. This is supported by Carpenter and Dickinson

(2016), who suggest its use because of the parallel between features that the

hypothesis identifies and the structural, social and experiential features that

simulation includes. Where authors describe using the contact hypothesis in

interprofessional education without realising all the contact conditions, negative

stereotypes can be reinforced inhibiting attitudinal change. This is significant to note as this study has identified a number of organisational, structural, professional and personally held views, explored briefly below that resonate with the contact hypothesis. Norsen and Spillane, (2012) support this view when they explore multiprofessional and interprofessional simulation, noting the importance of the socio-historical contexts of learner professional identity, describing the need to design for different professional domains of knowledge. The contact factors that describe valuing differences and similarities resonates with the development of sociological fidelity (Reeves, Lewin, Espin & Zwarenstein, 2012).

Dissatisfaction with simulation has been reported by learners where there is a lack of role definition, within a particular professional group and between different professional groups, (Brock et al., 2013; Scherer, Myers, O'Connor & Haskins, 2013). In this study this was seen between a protagonist and the supporting cast, accompanied by the relational dynamic this establishes. This is significant in terms of the contact hypothesis with respect to valuing differences and similarities and also relates to identifying 'out-group issues'. The contact hypothesis and social identity theory helps to articulate the attention required to simulation design and facilitation/debrief when working with similarities and differences particularly around professional bias.

The contact hypothesis condition of equal status can draw the educators' attention to the significance of facilitating pre-briefing to increase role awareness and potential to gain a shared understanding of the scope of practice of others, thus developing a sense

of mutuality (Alinier et al., 2008; Bandali, Parker, Mummery & Preece, 2008). Equal

status and viewing others as typical can therefore help the educator to carefully

consider the meaning conveyed when using faculty to act out a role in the simulation.

Few studies that describe interprofessional education refer explicitly to managing

negative stereotypes, but instead describe a need to harness a tacit interprofessional

knowledge (Gardner, Ahmed, George & Frey, 2013; Robertson & Bandali, 2008), to

enable perception of others as typical through transferability of team performance in

practice (Gough et al., 2012; Zhang, Thompson & Miller, 2011; Eppich, Howard,

Vozenilek & Curran, 2011, Salas et al, 2008). Where working practices are reported to

be enhanced, it was often achieved through the mechanism of protocol driven

approaches. Dow, Salas and Mazmanian, (2012, p. 231) note that this type of

professional development aims to 'mirror everyday practice, while meeting

overarching institutional and societal imperatives', creating common goals and shared

successful outcomes. Protocol driven simulations are frequently used as they employ

a shared language and optimise professional identity (Engum & Jeffires, 2012) creating

an experience that promotes equal status. Forsythe (2012) found nurses were enabled

through debriefing to rebalance their assertiveness with physicians and Freeth, et al.,

(2009) report the opportunity to check assumptions, create new insights and the use

of role modelling highlighted entrenched hierarchies.

When considering organisational issues, identifying team dynamics at the start of a

simulation can help to establish specific learning goals to resolve process issues and

organisational challenges. The work of Buljac-Samardzic, van Dekker, Jeroen, van Wijngaarden and van Wijk (2010) resonates with contact factors, where the team, clinical approach, the organisation influencing the simulation foci and composition of the simulation are identified as important. The sharing of mental models is particularly relevant when there can be language confusion (Montgomery, Griswold-Theodorson, Morse, Montgomery & Dana Farabaugh, 2012). This capacity to develop shared mental models is harnessed in human factors education, recognising that knowledge is socially mediated and within teams becomes a collective narrative (Masiello, 2012) helping to achieve a shared purpose. The principles of human factors training, and crew resource management principles used in simulation reflect complexities of social learning in interprofessional education (Palagnas, Epps & Raemer, 2013), contributing to sociological authenticity in the simulation. Notably throughout the previous findings chapters, participants have described differences in how simulation is organised, funded, delivered and subsequently debriefed. These differences expose that when simulation attends to the needs of specific professional groups over others that, in reference to the contact hypothesis, an absence of institutional support is signified. The literature above helps to illustrate how one theory used in interprofessional education, the contact hypothesis, can be useful to the role of a simulation dramaturg, helping to orchestrate an interprofessional design approach as many of the contact conditions are reflected within extant literature. The contact hypothesis when applied

to simulation also supports the claim in this study that team simulation should always be provided through an interprofessional gaze.

11.10 THE SIMULATION DRAMATURG

This study finds that the concept of a simulation dramaturg articulates simulation practice that necessitates an interprofessional gaze. To do this the dramaturg engages in a process-conscious activity to consider the totality of the performance-making (Trencsényi & Cochrane, 2014) just as applying the contact hypothesis can support an educator to address sociological authenticity.

Both dramaturg and simulation educator with an interprofessional gaze are attempting to transcend representational properties of theatre (simulation) to share and develop new collaborations.   The simulation dramaturg therefore embodies the interprofessional requirements of simulation through conscious-process praxis.   This significant finding concerning the simulation dramaturg is conceptualised in this section, followed by a summary of the discussion chapter.

A simulation dramaturg incorporates a reflexive praxis, where action and thinking work dialectically. Praxis is employed here acknowledging how the simulation dramaturg conceptualises practice socially, psychologically and physically and participants displayed reflexivity, for example when approaching a debrief.   However, interprofessional praxis provides a lens to scrutinise simulation from several perspectives. Praxis implies a way of thinking as well as delivering simulation, to realise

simulation goals as an exploratory transformative process. What can emerge is a

capacity for conscious creativity, moving away from automatic default views to

incorporate an interprofessional gaze. Interprofessional simulation praxis utilises an

ethical value-based dimension recognising the need to draw on ideas across several

disciplines (that includes the interprofessional domain) and thus not only provide

simulation but to also shape what simulation is for. Dieckmann et al. (2018) describe

educators as transferring educational and clinical knowledge skills from the simulation

setting to clinical and educational practices for both themselves and their learners.

Therefore how the simulation dramaturg moves within this reflexive praxis, to

contemplate these identities and the influence of external factors is significant, as this

action includes the potential for transformative changes for themselves and their

learners. (Dieckmann et al., 2018). Giddens (1991), in reference to reflexivity

recognises that against a changing backdrop of social events a constant questioning of

self is required if one is to achieve a sense of authenticity. This requirement to

contextualise oneself has relevance for the simulation dramaturg in being able to

contextualise and manoeuvre when there is impetus to change and to address service

improvements through team collaboration in simulation. Bourdieu acknowledges the

use of reflexivity to reflect on one's own habitus, perhaps to expose tacit awareness of

practice and, significantly in this study, interprofessional practice consistently (Eraut,

2004).

The concept of simulation dramaturg resonates within the literature that considers the roles of simulation providers. Boet, Bould, Burn and Reeves (2014) identify twelve tips for providers of interprofessional simulation including: facilitation of simulation; debriefing with good judgement; use of pedagogy; meeting organisational drivers; creating curriculum content and rehearsing team performance. Husebø, Dieckmann, Rystedt, Søreide and Friberg, (2013) recognise the role modelling provided by educators that resonates with studies that consider the features of effective interprofessional facilitation (Freeman, Wright & Lindqvist, 2010). The dramaturg operating with an interprofessional gaze acts reflexively to challenge their own and others' default views to ask questions within simulation that help to develop interprofessional learning opportunities. This dramaturgical practice informed by interprofessional theories would consider the impact that structural issues have on the enhancing authenticity (Nyström et al., 2017) and educator praxis concerning team processes necessitate an interprofessional lens to consider what might hinder meeting interprofessional goals (Nyström et al., 2017). As the contact hypothesis suggests, absence of any contact factors may impede positive changes, undermining a fundamental rationale for providing team simulation, namely changes in behaviours in relation to working with others (Health Education England, 2019). Simulation, like interprofessional education, holds a promise to be transformational (Dieckmann et al., 2018) as the learning interaction provides teachable moments within the complexity of interprofessional issues (Van Seoren et al., 2011). A shared ambition to consolidate

the impact of simulation and interprofessional education (Barr & Gray, 2013; Eppich, Howard, Vozenilek & Curran, 2011) is to further integrate into curricula to engender ownership and increase the likelihood of transference to practice settings (Diekmann et al., 2012; Diekmann, 2009). Ultimately through engagement with interprofessional simulation practice, a new pervasive default has the opportunity to emerge where the corresponding goals of simulation and interprofessional education are realised.

11.11 SUMMARY

This chapter has provided a synthesis of concepts to support the emergent theory Putting on a Show, discussing findings and key issues arising from the study. The significance of the study findings have been addressed and considered in the light of literature, to contextualise and illuminate the contribution of this study to the field of interprofessional and simulation education. The findings have placed the conceptual grounded theory with existing literature of performance and theatre arts, simulation and interprofessional education, locating the theory in a practice context. The final chapter will now provide a conclusion to the thesis; an evaluation of the credibility of the study, an articulation of the contribution it has made and will provide recommendations for practice and further research.

12 CONCLUSIONS AND RECOMMENDATIONS

12.1 INTRODUCTION TO THE CHAPTER

'Grounded theory involves taking comparisons from data and reaching up to construct abstractions and simultaneously reaching down to tie these abstractions to data'

(Charmaz, 2014, p.323)

This final chapter outlines what this study adds, concerning educator practices when providing team simulation for more than one professional group. The conceptual framework of Putting on a Show is the outcome of the application of constructionist grounded theory approaches and this chapter includes a review of the research process undertaken using the following evaluative criteria: credibility, originality, resonance and usefulness in transforming knowledge (Charmaz, 2014). This chapter also considers the limitations of the study and makes recommendations for practice and future research opportunities in this area.

12.2 THE CONTRIBUTION OF THIS STUDY: REFLECTION ON THE AIMS OF THE STUDY

Chapter two set the context of the study, drawing on extant literature for interprofessional education, simulation and where these two domains intersect. This

literature considered the drivers, focus of scenarios and outcomes for interprofessional education, noting that there was a lack of evaluative data and theoretical orientation that related interprofessional education to simulation. Educator practices that addressed simulation-physical, technical and psychological authenticity were explored but social authenticity, seen as essential for interprofessional learning and a critical element of interprofessional simulation was identified as an area for further investigation. Where interprofessional simulation is used in continuing professional development, there is little understanding of the role of educators as derived from their own perspective. A 'common sense' approach has always been inferred in both simulation and interprofessional learning, with an expectation of improving practice but, as described in chapter 2, how, when and why they work are more complex undertakings to account for. This doctoral report has discussed how nuanced educator practices were, and whilst it appears common sense to rehearse interprofessional simulation, approaches that help to support this, as described in this study, are more complex to achieve and understand. This project has addressed the aims of the study and contributed to deepening an understanding of educator practices. This has been considered through the employment of theatrical practices, describing default views and the application of dramaturgical and interprofessional theory to realise the characteristics of an interprofessional simulation educator to improve social authenticity.

12.2.1 THE STUDY QUESTION, AIMS AND OBJECTIVES

The question posed in this study was to ask how educators describe their practice of providing team-based simulation to more than professional group for post registration learners.

The aims of this study were to:

• Generate theoretical understanding of providing team-based simulation for more than one professional group.

• Contribute to knowledge that has application to practice and theory development of both interprofessional education, simulation and where these two approaches intersect.

These aims are deminstrated chapter's five to nine. These chapters present constructions of the processes and experiences that participants reported regarding the phenomenon at hand. The activities educators undertook when designing, delivering and debriefing simulation were described and discussed, when Putting on a Show. Concerns such as background and context, organisational and professional requirements, educational approaches and socially mediated practices of educators approached were explored. In chapter nine, the interprofessional dramaturg is described and interprofessional praxis is conceptualised for educators when providing interprofessional simulation for post-registration learners.

12.3 EVALUATING THE STUDY

Charmaz (2014, p. 336) acknowledges that the grounded theory process contains 'untapped versatility and potential' that can be perceived as lacking methodological strength (Bryman, 2016). This is possibly due to the many methodological turns of this approach and the variances of employing methods without fully engaging in grounded theory approaches. This versatility enables a flexible approach to research, but can create concerns when considering the employment of the developed substantive theory for a variety of purposes and audiences. Silverman (2013) advocates adopting a systematic self-critical inquiry to evaluating research. This aims to explicate 'theoretical, methodological and topic related literature, alongside reflexivity, notably the relationship between researcher and participants and associated ethical considerations' (Silverman, 2013, p. 304). All research approaches have strengths and limitations and awareness of these issues can help the researcher maintain a reflexive stance to provide rigour to the processes. Any evaluation should discuss these with the reader. Grounded theory is acknowledged to be a time-consuming process, coding, scheduling interviews whilst memoing and employing constant comparative methods is difficult to orchestrate (Charmaz, 2014; Bryman, 2016). As a novice researcher undertaking these co-construction processes to support emergence of theory from the data has required discipline through reflexive practice and considerable writing and re-writing of the processes to produce a genuine account. At the start of the study I had little idea of what the outcome might be. This chapter evaluates the study using

criteria for grounded theory studies (Charmaz, 2014) to frame a critique of the study, using the concepts of credibility, originality, resonance and usefulness to draw out strengths and limitations. Originality of the work can be considered in how the work extends existing knowledge.

12.3.1 CREDIBILITY

Credibility of the study is conveyed through a clear articulation of the co-construction processes, using the participant voice in the work and the absence of any claim toward a unifying truth, being transparent in my position as a researcher. The grounded theory approach taken involves being contextually situated (Charmaz, 2014) and this study explored educator experiences of providing team-orientated simulations to more than one professional group. The study drew on a small number of participants providing team simulation using in depth interviews and diagramming techniques, which were described in chapter 3. Sample size in this study can be viewed as a limitation to establishing the credibility of the study. Within constructionist grounded theory studies there is no correct sample size, as the method can be employed with small case study approaches, large data sets or literature-based samples and be reported at any time during the process (Charmaz, 2014). Credibility is therefore not determined by size, but by sufficient data collection so that rich descriptions of the phenomenon at hand are described providing the opportunity for theoretical saturation (Charmaz, 2014), which has been shared in previous chapters.

As a professional doctorate concerns practitioner enquiry, the study has addressed

worlds to which the researcher belongs (Hellawell, 2006). Adler and Adler (1987) help

to identify that insider research can include being on the periphery of group, being

someone who has a priori knowledge of the area of interest (Merton, 1972). Being an

insider to an area under investigation can be viewed as a limitation of the study, with

concerns about compromising validity due to a subjective bias and ethical concerns

about the power and relational dynamics. As the researcher worked with one

participant and had taught another, insider researcher positionality has been made

transparent to support trustworthiness of the research process, within the

constructionist paradigm in which the study is located. Whilst closeness to the

research can be viewed as limiting, benefits included, enhanced levels of interaction,

knowledge and access regarding the area of study. Sensitivity to language and

terminology positively helped the researcher to navigate the multiple readings of what

constitutes interprofessional or multiprofessional approaches.

At the outset, requirements to describe the study in protocols required reference to

interprofessional, articulating the focus of the study, and is reflected on the participant

consent and information sheets. This orientation was made clear to the participants

throughout data collection but the term 'interprofessional' was avoided, cognisant of

how terms of 'interprofessional and multiprofessional' are often used interchangeably.

This supported opportunities for participants to talk about team simulations in a way

they deemed important. As the researcher is an experienced educator and clinician

interaction with the participants was enhanced and this shared narrative of being a practitioner educator was helpful.

The use of diagramming provided an anchor to the participant voice during the study. This technique assisted the researcher to stay with the participant perspective and avoid forcing preconceived ideas during data generation and analysis. Significantly the epistemological orientation of the study has supported the creation of shared narratives, through metaphor and analogy as the research is co-constructed (Charmaz, 2014).

Initial expectations when using Pictor diagramming were based on a small pilot study, where data captured interpersonal dynamics alongside wider concerns. Instead, participants in the main study used the method to illustrate simulation at macro, meso and micro levels, detailing, structure, process and interactive features. This adaptation in using Pictor is supported in grounded theory as Charmaz (2014) advocates using methods flexibly. Being led by the participants proved useful, as the relational qualities through which the educators conceptualised their practice was depicted; and this shaped the structure of the conceptual framework in developing, delivering and debriefing simulation. Furthermore, the maps created by the participants when combined with the interview transcripts facilitated an intimate familiarity with the topic at hand (Charmaz, 2014). Techniques of in vivo coding gave voice to the participant, and sense checking emergent categories with participants maintained close relationship with the participant voice through co-construction processes.

Decisions made throughout the study have also been one of collective practice (Corlett & Mavin, 2018) and researcher has worked with a range of critical friends and the supervisory team. These critically reflexive conversations have been incredibly helpful in helping the researcher to remain connected to the research, theoretically, experientially and emotionally (Haynes, 2012).

Several issues arose that were unanticipated, which can be viewed as limitations of this study. Data analysis was an exciting point in the study and NViVo software was intended to be used, but the architecture the software provided was prohibitive to the analytical process, and the researcher preferred to be freely creative with data on paper. This could also be attributed to the researcher working successfully with dyslexia, where diagrams are often used as effective sequencing and ordering tools and the inclusion of sketches in this report acknowledge this aspect of the researchers world. Working consistently in this way facilitated a confident, consistent and rigorous approach to techniques in grounded theory, using them in the same way with all the data.

Through the process of analysing and comparison, confidence in the analytical process grew, in particular abstractions of codes to categories being an enjoyable part of the process. Prolific memo writing occurred (using speech to text software), often to capture the moment but to also offer a counsel against forcing of theory onto data. The writing process was very difficult, but clearly a necessary step and an essential part of the process, articulating the theory, clarifying ideas to communicate key outcomes

in a coherent and useful way (Charmaz, 2014). Continuously referring to the data

during the writing process helped to further ground the theory in participant accounts.

This helped to establish relationships between categories and informed the order of

how to present the final report.

12.3.2 ORIGINALITY

This study has generated a fresh insight to simulation educator practices as described

in previous chapters. Conceptual rendering of the data to both a metaphorical and

utilitarian application of theatrical practices helped to articulate how interprofessional

simulation can be facilitated. In particular, in relation to dramaturgical practice

providing a new insight to using this concept. Correspondence with Bourdieu's

seminal work and defaulting views to support the development of sociological

authenticity in simulation are both original in creating a conceptual rendering on data

and provides both social and theoretical significance.

12.3.3 RESONANCE AND USEFULNESS

The study resonates with this field, illuminating taken for granted practices, such as

the default view, and making sense of practices to educators consulted in the study.

This provides a deeper insight to this area of their practice. The study has products

that convey its usefulness to others, namely the employment of theatre practices in

simulation, use of interprofessional theory such as the contact hypothesis, that

contribute to opportunities for both further research and advance understanding in this area.

Notably the ontological orientation of this study is constructionism, placing a value on the individual construction of meaning from social contexts, each experience being valued as unique (Crotty, 1998). This orientation notes that the research is co-constructed considering both the participant voice but also recognises the inputs I have made as researcher. No doubt when others view this work a different interpretation will be available to make. Other approaches may have also provided useful insights into the educator accounts of their simulation practices, such as phenomenology or narrative approaches including thematic analysis. Unquestionably the interpretation I brought to the study, influenced the analytical decisions made. Recognising that the data was rich with potential themes drove the analysis but also created questions that were explored reflexively within the study. No doubt others considering this study may hold difference views, placing alternate emphasis on where a theoretical explanation might be grounded in the data.

 This study makes the following contributions to knowledge in this field:

- The comparison of theatre practices to simulation yields useful insights to the roles that educators enact when providing interprofessional simulation. These roles illuminate practices that they work within or overcome, and help to

articulate how simulation is socially designed, delivered and debriefed through the role of playwright, director and critic.

- Simulation educators work within extant organisational structures as part of their roles and these were seen to strongly influence the potential for interprofessional learning. New understandings are provided concerning how the political and cultural interpretation by educators of contemporary practice is therefore significant in shaping simulation experiences. This underlines how simulation carries the potential to transform practice, create opportunities to experience new ways of working, or conversely reinforce existing practices that are barriers to safer patient care; namely professional hierarchies and power imbalances.

- Educators were found to hold default views, described as a passive engagement with pervasive dominant perspectives shaped by role, background and context of simulation. This illuminates how using interprofessional theory can help to alter this view to create an interprofessional gaze.

- A new insight concerning a role of simulation dramaturg exemplifies how an interprofessional gaze is developed when theory is employed to question taken for granted practices to inform educational processes when providing interprofessional simulation.

- A substantive theory of how educators provide interprofessional simulation has been developed. This includes identifying the need for educators to adopt

interprofessional praxis to their work, including the use of theory to help

develop social authenticity in simulation. The conceptual framework is an

interpretative approach of how a constructed reality of participants' accounts

provides an in-depth understanding of the phenomenon.

12.4 RECOMMENDATIONS FOR PRACTICE AND FURTHER STUDY

There are several recommendations to be made from this study:

1. Team simulations for more than one professional group should always be approached as interprofessional learning that employs interprofessional theories.

2. The professional and organisational structures that simulation is provided within should be considered to better align to the share goals of interprofessional and team-based simulation outcomes.

3. Interprofessional theory should be a feature of faculty educator development programmes to support interprofessional praxis in team simulation.

4. Further research to explore the utility of the simulation dramaturg role.

5. Further research to explore the notion of default views and how these are influenced by the inclusion of interprofessional theory in simulation faculty development.

12.5 SUMMARY

The chapter provides a critical reflection on the credibility of the substantive theory of Putting on a Show and the overall approach taken in this doctoral project. A series of conclusions and recommendations are put forward that will inform other studies and a claim is made as to how this work contributes to new knowledge and extends current

ideas within the field as simulation and interprofessional education continue to be a feature of workforce development.

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APPENDICES

APPENDIX 1

Study Details

Sheffield Hallam University | **Centre for Health and Social Care Research**

01/05/2015

Research proposal number: HWB-HSC-DPS-4.

Sent by email

Claire Walsh

Dear Claire

This letter relates to your research proposal **The practice of interprofessional simulation: a grounded theory study**

This proposal was submitted to the Faculty Research Ethics Committee with a standard SHREC 1 form. This indicates that your project does not require any further formal ethics and scientific review. As such, it has been added to the register of projects and given a reference number, as above. You do not need any further review from the Ethics Committee. You will need to ensure you have all other necessary permission in place before proceeding, for example, from the Research Governance office of any sites outside the University where

your research will take place. This letter can be used as evidence that the proposal has been registered and approved within Sheffield Hallam University.

The documents reviewed were:

Research Ethics Checklist (SHUREC1)

All the documentation relating to the DPS1

Good luck with your project.

Yours sincerely

Peter Allmark

Chair Faculty Research Ethics Committee

Faculty of Health and Wellbeing

Sheffield Hallam University

32 Collegiate Crescent

Sheffield

S10 2BP

0114 224 5727

p.allmark@shu.ac.uk

Information Sheet

Study title: The practice of interprofessional simulation: a grounded theory study

You are being invited to participate in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask if there is anything not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

What is the Purpose of the Study?

The purpose of the study is to have a better understanding of the experiences of educators who provide simulation education for more than one healthcare professional group. Simulation can be described as:

" …a technique, not a technology, to replace or amplify real experiences with guided experiences, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion"

(Gaba 2004, p. i2).

This research study occurs at a time convenient to the participant and is made up of an interview that involves the creation of diagrams on paper and a series of open ended questions about the diagrams created to explore out any ideas or issues discussed in the interview.

Why have I been chosen?

You have been chosen as you have a role in the delivery of simulation to healthcare practitioners from more than one professional group.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet, an information sheet about a method of data collection used during the interview used to generate a diagrammatic 'map' called PICTOR. You will be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time during the study period (anticipated to be one year) and without giving a reason.

What will happen if I choose to take part?

The research comprises of an interview, this will not take any longer than1 hour 30 minutes. You will be invited to participate in an interview and participate in an activity during the interview where you use

'post it notes' to create a diagram/map of your ideas about the subject of the study. (The researcher has also provided you with an information sheet describing this diagramming method called PICTOR). You will be invited to create visual diagrams or 'maps' using post-it's notes, any diagrams you create will be photographed. The interview questions will focus around the map you have created. The interview will be digitally recorded. The recordings will then be transcribed and your comments will be anonymised along with the visual map you create.

Where will this take place?

The interview will take place in a convenient location to you, this will more than likely be your workplace or the researcher's workplace. The interview will be held in a private location.

What do I have to do?

If choosing to participate you can provide your opinions on your own experiences of planning, facilitating and debriefing simulation that involves healthcare practitioners from more than one professional group.

What are the possible benefits of taking part?

By taking part in the study you can help to inform the future educational development of simulation in healthcare settings. Participants have also found the process of sharing their experiences positive for reflection on their practice as part of their continuing professional development.

Where will I have the opportunity to discuss my participation?

Opportunities to debrief on the experience will be offered after the interview, the transcript and any photographs of the visual maps you have created will be made available to you if you wish.

Who will be responsible for all of the information when this study is over?

The data from this study will be kept, under lock and key password protection using secure firewalls for a period of time identify the researchers University. At which point the data will be destroyed. This data will not be used in any other studies.

Who will have access to it?

The researcher and the supervisory team will have access to the original data if required. Any data discussed during supervisory meetings will use a unique identifier given to the interview to assure anonymity in discussion of any confidential material

What if something goes wrong?

If the interview were to cause you distress the interview would be stopped and support would be offered from the researcher's university.

Will my taking part in the study be kept confidential?

All information collected about you (the recording of the interview and your name and profession and the institution you work in) will kept strictly confidential and anonymised when the recording is transcribed.

Will anyone be able to connect me with what is recorded and reported?

Your interview will be anonymised once the interviewed digital recording has been transcribed alongside the mapping you have created using the post it notes will be made anonymous and given a unique identifier. This means that neither yourself or your employing organisation will be recognised from many data shared through producing a report of the study or any future sharing of the work.

What will happen to the results of this research?

The results of this research may be published to help inform educational developments in simulation the research will be published and shared in the wider educational community in the UK and Internationally.

Do you have any other questions?

Who has reviewed the study?

Sheffield Hallam University ethics committee have reviewed this study.

Details of who to contact with any concerns or if adverse effects occur after the study.

Researcher	Research Director of Studies	Supervisor
Claire Walsh	Professor Frances Gordon	**Dr Alex McClimmens**
Senior Lecturer	Professor of Interprofessional Education	**a.mcclimmens@shu.ac.uk**
Department of Nursing and Midwifery	Sheffield Hallam University	Thank you for taking part in this study
Sheffield Hallam University	**f.gordon@shu.ac.uk**	
c.walsh@shu.ac.uk		
Tel:01142255365		

TITLE OF RESEARCH STUDY: Study title: The practice of interprofessional simulation: a grounded theory study

Please answer the following questions by ticking the response that applies

	YES	NO
1. I have read the Information Sheet for this study and have had details of the study explained to me.	☐	☐
2. My questions about the study have been answered to my satisfaction and I understand that I may ask further questions at any point.	☐	☐
3. I understand that I am free to withdraw from the study within the time limits outlined in the Information Sheet, without giving a reason for my withdrawal or to decline to answer any particular questions in the study without any consequences to my future treatment by the researcher.	☐	☐
4. I agree to provide information to the researchers under the conditions of confidentiality set out in the Information Sheet.	☐	☐
5. I wish to participate in the study under the conditions set out in the Information Sheet.	☐	☐
6. I consent to the information collected for the purposes of this research study, once anonymised (so that I cannot be identified), to be used for any other research purposes.	☐	☐

Participant's Signature: _____ **Date:** _____
Participant's Name (Printed): _____
Contact details: _____
Researcher's Name (Printed): Claire Walsh_____
Researcher's Signature: _____
Researcher's contact details:
Claire Walsh
Senior Lecturer
Department of Nursing and Midwifery
Faculty of Health and Wellbeing
Sheffield Hallam University
Room F414
Robert Winston Building
Broomhall Road
Sheffield S10 2 BP
Please keep your copy of the consent form and the information sheet together.

Promotional Email

The practice of interprofessional simulation: a grounded theory study?

- Are you involved in providing simulation based education for post registration learners from more than one professional group, within Health Education Yorkshire and the Humber or Health Education East Midlands regions?
- Would you like an opportunity to explore and share the interprofessional context of your simulation practice?

This study aims to explore how educators understand the interprofessional nature of simulation. To facilitate exploring the complexities of team simulation a diagramming/mapping technique called PICTOR will be used in the interview (see left).

Simulation educators who have used this approach found it a beneficial opportunity to reflect on complex team practices that occur during interprofessional simulation.

The study requires 90 minutes of time to participate in an interview using the mapping technique above.

The study has been granted ethical approval by Sheffield Hallam University

Contact Claire Walsh to participate in the study

c.walsh@shu.ac.uk

Telephone : 01142255365

Address: Sheffield Hallam University

Robert Winston Building

10-15 Broomhall Road

Sheffield

S10 2BP

Instructional Guide for PICTOR mapping

Study title: The practice of interprofessional simulation: a grounded theory study

Can you consider the times which you have designed, delivered and debriefed an interprofessional simulation event for multi-professional learners.

Thinking about this I would like you to use using the arrow shaped coloured 'post it notes' create a 'map' of this simulation encounter.

This map is your representation of any aspects you understand to be important when providing interprofessional simulation.

You can use a different coloured post it notes to identify different aspects of interprofessional simulation.

The relationship between the arrows, their proximity or the way that they point can be used to illustrate different aspects of simulation.

Here is an example of a PICTOR map

I will leave the room whilst you create the map and return when this is done, and then we can talk about this further.

At any point during the interview you can revise the map.

At the end of the interview I will take pictures of the map you have created to accompany the interview record.

Topic Guide for Interviews 3-7

Tell me about the teaching and learning approaches you use during simulation?

      When preparing for simulation

      When running the simulation

      When debriefing the simulation

Tell me about the context of the simulations you provide?

Exploring use of tentative themes

If this is a performance can you describe to me what you are wanting to achieve?

If you had a role in a theatrical sense what would that be?

What are the things that influence you approaching your work when adopting this role?

What are you trying to achieve when working in this way?

How do you work with others when working in this way?

Research Passport Algorithm v3.2

This form should be completed by the researcher

Name of Researcher: Claire Walsh

of Project/s: STH19025

Please highlight the correct row/s of the table This will indicate if a criminal record and/or occupational health check is required.

Type of research activity	Criminal record check needed? (DBS)	Occupational Health Check needed?
Researcher **will have a direct bearing on quality of care**[1] **OR** will be providing **health care**[2], **personal care** or **social care** to an **adult and/or child**	Yes **this is regulated Activity.** Requires enhanced DBS + appropriate barred list	Yes, if there is direct contact
Researcher has opportunity for **any form of unsupervised contact with children** and has **no direct bearing on the quality of care**	Yes, **if done regularly this is Regulated Activity**. Requires enhanced DBS + barred list	Yes, if there is direct contact
Researcher has opportunity for **any form of contact with children** within a Children's Hospital and has **no direct bearing on the quality of care**	Yes, **if done regularly this is Regulated Activity**. Requires enhanced DBS + barred list	Yes, if there is direct contact
Researcher has **access**[3] **to patients** (adult patients or supervised access to child patients outside a Children's Hospital) in the course of their normal duties but **not providing health or social care** activity and has **no direct bearing on the quality of care**	Yes, standard DBS check	Yes, if there is direct contact
Researcher has **indirect contact with adult patients/service users**, but **not providing health or social care** and has **no direct bearing on the quality of care**	No	No
Researcher requires access to **identifiable patient data** derived from health records, tissues or organs with a **likely direct bearing on the quality of care**	No	Yes - only if working with tissues or organs in NHS facilities
Researcher requires access to **identifiable patient data** derived from health records, tissues or organs with **no direct bearing on the quality of care**	No	Yes - only if working with tissues or organs in NHS facilities
Researcher requires access to **anonymised patient data** derived from health records, tissues or organs	No	Yes - only if working with tissues or organs in NHS facilities
Researcher is working on **NHS premises only** (no access to identifiable data)	No	Yes - only if working with tissues or organs in NHS facilities
Researcher requires **direct contact**[3] **with staff only but no access to patients**	No	No
Researcher requires access to **staff data only**	No	No

[1] A "direct bearing on the quality of care" suggests that the actions of researchers could directly affect the type, quality or extent of prevention, diagnosis or treatment of illness or cause injury or loss to an individual to whom the organisation has a duty of care.

[2] "Health care" - includes all forms of health care provided for individuals, including physical/mental health, palliative care and procedures similar to forms of medical or surgical care but not provided in connection with a medical condition.

[3] 'Access' and 'Direct contact' relates to where individuals will be in the same room as patients e.g. observation, qualitative interviews, focus groups

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Private & Confidential – Addressee Only

Ref: 5139

Ms Claire Walsh

Dear Ms Walsh,

<u>**RE: Honorary Contract for a Work Placement with**</u> ██████████████ **S Foundation Trust ('the Trust')**

I have received notification that you are to undertake a work placement [observation] at the Trust. In order for you to undertake this unpaid work placement with the Trust you will be required to enter into an Honorary Contract and comply with a number of conditions.

<u>Terms of Honorary Contract</u>

An honorary contract can only be offered to you for the purposes outlined in the application form and on completion of any pre-placement requirements as defined by the Human Resources Department.

An honorary contract is <u>not</u> considered a period of employment with the Trust and is unpaid. It therefore does not attract any remuneration or other associated benefits paid or unpaid.

Although you will not be an employee of the Trust for the duration of any honorary contract the holder is also subject to the Trust's local policies and procedures and you are required to comply whenever you are on one of the Trust's five sites.

<u>Pre-placement Clearances</u>

All work placements are subject to a number of pre-placement clearances in accordance with national NHS Standards to ensure patient safety and comply with certain legal obligations. All of these checks must be completed satisfactorily before you can begin your work placement with the Trust. Failure to comply with this process may result in a delay of the start of your work placement. Your co-operation during this process is appreciated.

We are required to complete the following to a satisfactory NHS Standard:

- Verification of Identity
- Immigration Status
- Verification of Registration/License to Practise (if applicable)
- Occupational Health Clearance (if applicable)
- Disclosure and Barring Service Check (if applicable) **(please note a fee is payable by you, the applicant to complete this check)**

To enable us to comply with these checks a <u>pre-placement appointment</u> **has been made for you as follows:**

Date: Thursday the 11th of July 2013 at 13:30pm.

APPENDIX 2

Participant Details

Pseudonym	Years providing simulation	Professional background	Educational role	Professional groups learners came from	Typology of simulation	Educational development	Debrief
Greg	10	Nurse	Higher education lecturer	Pharmacists, nurses, medics,	low-medium	PG Cert Education General Instructor Course (Resuscitation Council) Simulation Faculty Development Course	from memory
Ross	5	Medical doctor	Simulation fellow	Bioscience technicians, medics, nurses, advanced clinical practitioners, Healthcare	medium	PG Cert Medical Leadership General Instructor Course (	scribed

				support workers,		Resuscitation Council) Simulation Faculty Development Course	
Sarah	5	Medical doctor	Simulation fellow	Medics, nurses, healthcare support workers, pharmacists	low-medium	PG Cert Medical Leadership, Simulation faculty development course General Instructor Course(Resuscitation Council)	videoed
Matt	8	Nurse	Clinical educator	Medics, nurses, paramedics.	medium	MSc Healthcare Education including modules on simulation and interprofessional education	videoed
Ben	3	Nurse	Clinical educator	Medics, nurses, paramedics, paramedic technicians,	medium	Undertaking an MSc in leadership that includes option simulation module	scribed

				transportation experts			
Margaret	10	Medical doctor	Regional training director	Medics, midwives, nurses, healthcare support workers	low-medium	Specialty Training	videoed
Sally	15	Medical doctor	Regional training director	Medics, nurses, advanced nurse practitioners, healthcare support workers, operating department practitioners	low-medium	Specialty Training	from memory

APPENDIX 3

Examples of Pictor maps from Participants 1-4

Faculty

Faculty department (learning how to run sim

Consideration of the level of the

National sim

Ipatient safety

TEL drivers

Technical

here Started

Faculty numbers

Scenario

Non technical skills

Local Sim

Scenario Delivery and facilitated

Evidence behind

Equipment

Video or no

Time/Funding/ resources

Manikin type

Debriefing

Equipment just for simulation

Best time to

Educational debrief

Environment to

Contingency for real patients

Permission

Discussion with various people in

IF in situ Other factors

Environment in situ

All of this before the

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Pictor Ross

Simulation provides

Dept/trust wants to show learning

discussion before with

balance complexity with reproducibility

promoted session

Major haemorrhage protocol

it is poorly understood and implemented

use simulation **to** enhance learning

promote simulation

needs to be in-situ to practise technical skills

this needs to be done by the full team

promote team/staff connection

skills related to specific task

Generic nontechnical skills

enhance learning

make more interesting

add level of fidelity (real blood)

complex debrief

positive debrief

focus on generic & team role

difference knowledge/prev experience

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Pictor Sarah

insitu SIM of SUI's

preparation

practical considerations
- When?
- What room?
- who facilitates debrief

case related
- draft expected scenario progression
- what were the learning
- what was the case?
- uni /multiprofessional facilitators

props
- mannequin
- actor/hybrid
- recreate notes

technical consideration
- camera

during the

- observers not in sight
- stay in character
- maintaining fidelity
- props
- ensuring adequate learning experience for observers
- good view from
- background noise
- ensuring accuracy of case/ manipulating scenario experience
- reflecting /planning for next

the debrief

- facilitators
- setting
- ?Guerrilla/ bedside
- audience /learning
- additional resources
- ?Guidelines
- presentation after session
- ? part of other
- ? just those
- ? part of teaching

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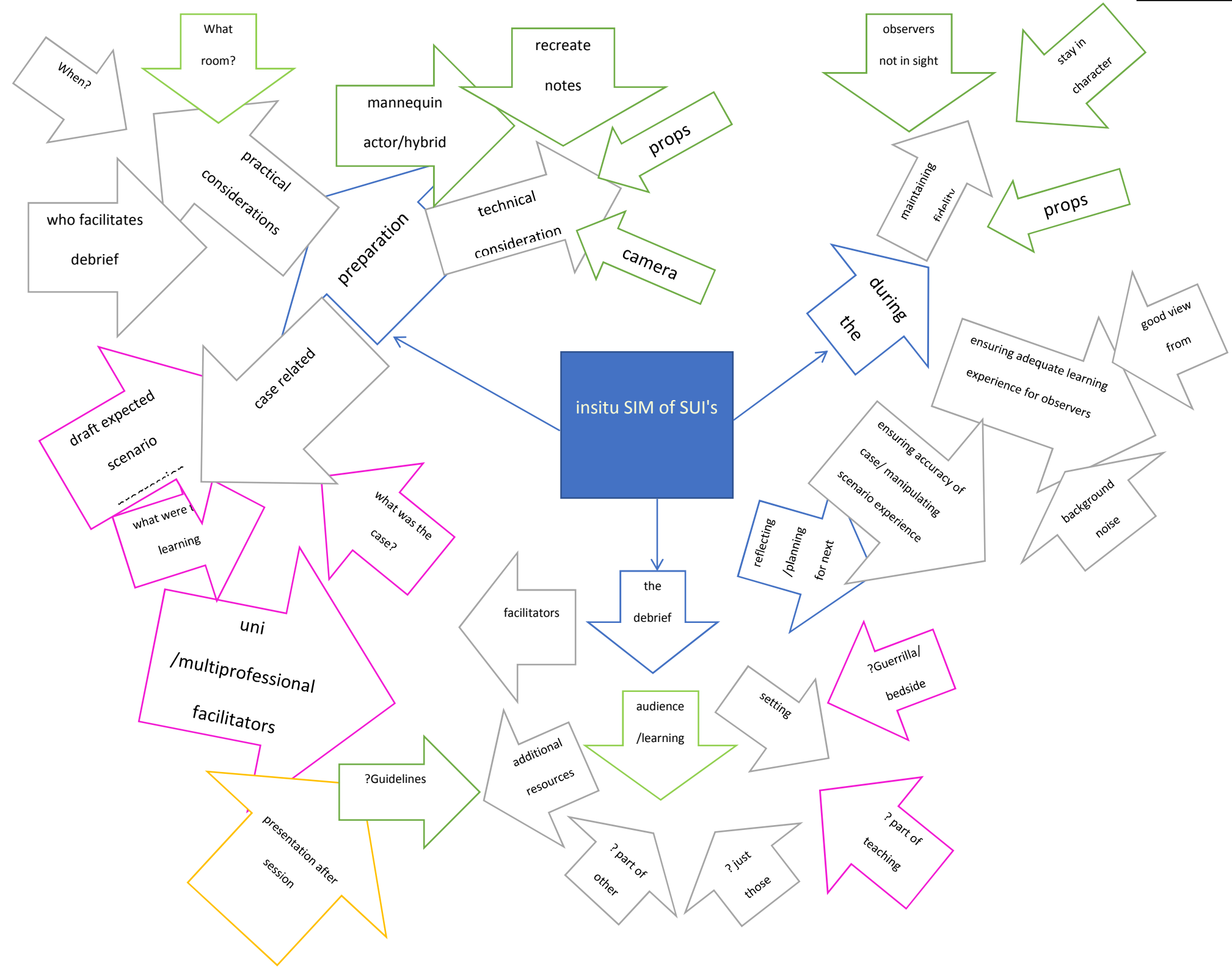
APPENDIX 4

Sample of Memos and Reflections from the Study

Ready to move on...?

Pictor's capacity to describe facilitated relationships has not come to the fore in a way I thought it might. Instead of individual professional dynamics being described, are structures and processes. Reading around the literature with regard to using visual representation, I have used them to facilitate a conversation and they have provided a useful anchor to the interview, helpfully describing what is there... but also what's not explored is also interesting. I think I am mapping a terrain rather than relationship.

Rather than seeing this as failure, I can use this alternate value within the method and perhaps it's a reason to alter the data collection approach?

Memo default teams: Interprofessional fidelity.

Notion of default man, creating default teams, rather than different teams...

Grayson Perry in his book The Descent of Man (2016), refers to modern man as Default Man.He says: "I like the word "default", for not only does it mean "the result of not

making an active choice", but two of its synonyms are "failure to pay" and "evasion", which seems incredibly appropriate, considering the group I wish to talk about."

This default view is woven into the very fabric of society sometimes with an obvious or subtle bias in favour of the default position. Perry argues in order that a more equal society can be created, then the default view needs to be unpicked so other worldviews can be expressed equally. This default position is often a reference point from which judgements and opinions are made. Structures within society therefore support this default theme to approve of the position which is subsequently seen as a normal status of things.

Doing something 'by default' is a passive action, it's not a negative one, but is it neutral?

In this study everyone had their own default view, constructed I suggest from the professional group they belong to, the organisation they working, the reason for the simulation and the objectives of the experience. Constructivist views of knowledge creation support this perspective.

All the participants acknowledged educational theories that informed the default view such as experiential and adult learning theories. The default view was also informed by the backstory and this default you shape the way that the performance script is created.

Memo What was different amongst the participants?

Four participants interestingly describe 'when they know its going well'. This personal perspective is shaped through a perspective of 'personal knowing' when a team is working well.

One participant acknowledged they had a view, but they were more interested in what came out of the simulation in providing greater understanding of serious untoward incidents. So they noted their view opting to consider other views too.

One participant worked in a very flattened organisation hierarchically and his default gaze reflected this expectation in the performance of the team. He viewed teams working in this way… 'its how it is.'

This default, his neutral view is one of team collaboration.

How his organisation functioned, set his default view and his default view was interprofessional?

One participant described their self-awareness when exploring hierarchy and they acknowledged a default view they held was from a position of being the underdog, or a less enabled group. When he saw new registrant participants work within hierarchies, the educator identified stereotypes that were being enacted during the simulation. So everyone except Matt demonstrates having a neutral/passive view, Sarah is mindful of her passive gaze, others less so. Greg is aware that his 'defualt' plays into his views of hierarchy.

But Matt seems to be a negative case to the rest. This educators default view took into consideration some interprofessional education theories and they openly questioned "is this the world according to me" or am I trying to enable their understanding of what's going on. The educators default view was constructed from an awareness of interprofessional issues such as 'outgroup behaviour', 'contact hypothesis' and interprofessional facilitation, from an education masters they had studied. So he is building a picture in a different way to how others described what they did.

However. I can't assume that a lack of acknowledgement of a personal perspective equates to a set view, but it does acknowledge the presence of 'default'… of not making a choice so to provide simulation experiences that in some way express 'their version of a team'.

It appears that this version of the team is default to their organisation to the culture and values of their workplace.

If simulation is to provide a moment for critical reflection on team performance that is more than the default view, then the educator needs to be aware of their own default position (as some participants demonstrate).

Even when the workplace had an integrated team approach, the educator did not describe making active choice as their facilitation reflected the workplace culture.

So default is passive.

When simulations are designed educators are concerned with both the psychological and physical fidelity. It enables participants to suspend disbelief and be immersed in the experience, being as accurate as you can be to real-life. All of the participants talked in detail about achieving this fidelity and the importance of this to the experience is transforming the way that services are provided.

The interprofessional literature also talked about interprofessional or sociological fidelity. The attention given in the design delivering debrief of the simulation that considers the right conditions awareness of and challenge to the way the individuals learn with from and about each other.

If we take the example of one of the participant describing a high fidelity simulation *in situ* with the broad multi-professional group. The reason for the simulation was to provide training for low frequency but serious care events that helped one professional group meet their training and development needs, but was equally important to the whole team gaining exposure. The default view of the educator has an overall objective for a uni professional group. In the design of the simulation the educator talks about providing enough detail so the other professional groups feel involved, not to the level that their learning is a focus, is important but secondary to the overall objective. When debriefing this educator identifies these other professional groups as not working as part of the team, the subtext here was to alert

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this Uni professional group to their behaviour, and to realign their behaviour with the educators default view of an effective team performance.

Two things are happening here, firstly it can't be avoided that the reason for simulation is to meet training needs of a single profession. The educator acknowledging this, and indeed this informed their default view. So following this train of thought… What would happen if the educator altered their default view and think about all members of the team equally?

Secondly the default view is to run the simulation debrief and enable learning to occur with a focus on the training need of a single profession but with a secondary desire to allow the whole team experience the learning. The opportunities to explore why other professions behave differently in the simulation that is different to the default view may be missed. For example, in this instance a group of nurses organised themselves to complete the significant task, which was not communicated to the team leader. The default view held by the educator suggested that the nurses were wrong because the default view was from his and the team leaders' perspective. It appears that valuing the work of others in the simulation is held in reference to overarching goals of leadership.

You can't disagree that in this instance a lack of communication between the professional groups created some confusion, the value of this activity by the nursing

group was not supported by the educator in an equal way and was in opposition to their default view.

So how might the default view need to be developed so that sociological fidelity can be achieved which you kind of expect to be linked to transformative types of education?

Memo theoretical sampling : what are the educators doing?

What is their dominant perspective.?

 Exploring visual pleasures and narrative cinema*, by Laura Mulvey 1975*

"fascination of film is reinforced by pre-existing patterns of fascination from a dominant male perspective"

In this essay a feminist analysis of the dominant male viewpoint within the film industry is challenged. Mulvey explores how male power is nestled in film, screenwriting, directing and the powerhouses of the main film studios in the industry. Film seen as an "advanced representation system" (Mulvey 1975, p.806), Mulvey recognises that whilst alternative cinema provides new ways of seeing and interpreting visual methods, it only acts as a counterpoint to the dominant male gaze. This male gaze creates a layer of subjectivity," in a world ordered by sexual imbalance, pleasure in looking has been split between active/male and passive /female" (Mulvey 1975, p.808).   The director, usually a male, directs a dominantly male protagonist that controls and makes things happen in the film.. This male gaze within film controls the dimension of time through editing and the narrative performed and also controls the

dimensions of space. Mulvey argued that the structures within film and their relationship to formative external structures requires breaking down to successfully challenge mainstream film and the pleasure it provides, from a perspective that is *other* to the male gaze.

The idea of' the Gaze' I find very interesting when considering the participants in the study. What is the gaze of the educator, the simulation provider who is dramatist, director and critic and help to answer the question this, "what are these educated doing?" The gaze of the educator ties together elements of the theory of *putting on a show* .

Memo Considering the educators gaze.

The gaze starts as the writer develops a back story for the plot, the identification of main characters and the reason and motivations for running the simulation. The educator gaze designs the roles within the simulation, which characters are the main protagonists and the supporting cast; which characters are multi-dimensional and those having our walk-on part or acting as a prop. During the preparing phase, as the dramatist develops the characters within the storyline and its here that the first iterations of the subtext can be identified. Creating the subtext during the preparing phase of the simulation through the lens of this gaze therefore influences the potentiality of subtext within the performance.

As the educator moves into the rehearsing phase and acts as director and stage

manager the gaze is one of identifying how the storyline develops. In this phase the

educator starts to form an interpretation of what is occurring, they observe the

subtext. If an audience is present (remember the learners are an audience too) , the

director also encourages other participants of the simulation to do the same. This

encouragement might occur through a set of key questions are prompts again directed

from the perspective of the educators gaze.

The reviewing phase can sometimes utilise film itself as some of the simulations in this

study were video recorded. From the educators interviewed when film is used it is

edited. Here the educator is selecting elements of the simulation that will be reviewed

by the participants. Again this explicitly expresses their gaze of the performance. If

video recording isn't yet used in debrief, the educators describe making notes or

remembering important parts of the simulation they wish to critique. Whilst

participants of the simulation are also encouraged to do the same, the facilitation of

the participant feedback is also provided by the educator, this interpretation again,

happens through their own gaze. Thus the role and perspective of the critic during the

reviewing phase can be congruent with the gaze of the educator during initial

preparation of the simulation experience.

Mulvey (1975) argued that interpretation of film is reinforced by pre-existing patterns

of fascination of what's going on in the performance. So what are the pre-existing

patterns that exist within the gaze of the educator, how are these formed, and what

importance to the play in enhancing the potential for interprofessional learning during simulation.

Follow up?

- Can the educator gaze be developed to consider an interprofessional perspective, the experience of participants in this study suggests so?

- Social identity theory and social learning theory may provide the helpful ways of understanding how this gaze is constructed?

- What does interprofessional literature say about facilitation of IPE, that might help to answer the question above?

What is the educators initial starting point?....

See memo on "the default position"

APPENDIX 5

Glossary

Backstory:

A series of events that precede and lead up to the plot which may or may not be revealed to the audience. Playwrights may use a back story for their own reference to help develop their own context for the performance. The backstory can also be employed as a literary device to provide a narrative history.

Cardboard Character/One dimensional Character

A *cardboard character* fits a stereotype and has little to no original/redeeming traits of their own. Their roles are unmemorable and easily replaced. They often have a walk on part, briefly seen and have no speaking parts, they may only show one dimension in terms of a single trait or emotion.

Cast:

The participants of the performance

Crew:

Members of the production company that support the performance

Critic:

The role of the critic is to mediate intelligently and stylishly between a work and its audience; to educate and edify in an engaging and, preferably, entertaining way.

Director:

The lead individual who is in charge of the artistic and technical aspects of a production. Dependant on directorial style, the director can create all the action and script for the cast, or may work with the cast to improvise ideas around the plot or storyline.

Dramaturg:

Acts as a literary adviser who researches, selects, adapts, edits, and interprets scripts, supporting the dramatic composition and representation of the main elements of a drama on the stage.

Dress rehearsal:

A full scale rehearsal where every aspect and detail of the performance is rehearsed. Usually scripts are not used, lines will have been learned, but props, lighting and staging direction are employed. The director may still participate.

Plot:

A sequence of events within a story to denote character planning, providing dramatic structure, highlighting significant points that can have important consequences within a story. A plot describes the events that start the story, identifies the main characters,

what happens to them in the story and how the story is moved along through the interactions of the characters.

Playwright:

A person who writes plays, note the spelling to describe a skilled craft-person like action, rather than someone who produces written material.

Prop:

An object used by members of the cast during a performance, considered as anything movable or portable on the stage.

Script:

A structural guide consisting of dialogue, action and stage direction for a performance. The scripts contains the instruction guide as to how a performance can be staged.

Subtext:

Provides content of work that is not explicitly stated or announced or consciously acknowledged, but helps to convey the meaning behind words spoken or emotions behind action. The subtext can be seen to speak the truth about human interaction, which maybe felt and not seen. Unspoken thoughts and motives underneath the dialogue are conveyed. The subtext as a literary device may be used to convey

messages that may be too challenging to explore explicitly, such political or cultural conventions.

Three Dimensional Character:

Represent a complex role, that has a past, often containing conflict and makes up the major characters in a performance. The script is often related to the backstory of these main characters.

Typecast:

When an actor is consistently assigned to the same type of role, as a result of the conventional or oversimplified version of 'a character'.