

# **What Are Students Doing When We Aren't Looking: A Pilot Exploration of the Ways Students Interpret the Production and Risk Assessment Process when Working Independently of an Educator on Location Film Shoots**

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## **Abstract**

*There is a gap in the knowledge in ways that educators understand how students relate to the risk assessment process when working independently on media practice film shoots in Higher Education (HE). This article maps the existing research in this area before going on to consider ways of closing the gap by exploring the findings of a pilot study. The results of the literature analysis reveal significant findings from health and safety literature of the construction industry (Lingard et al., 2015) as well as health and safety literature on HE chemistry lab work (Gibson, Schröder and Wayne, 2014; Hill and Finster, 2013) which both move the current field of film industry health and safety (H&S) literature and HE screen arts H&S literature (Kerrigan et al., 2011; Oughton, 2013) forward to explore a significant gap from which to conduct research. The article then examines the pilot study. Steeped in a hermeneutic phenomenological methodology, it utilises 360-camera capture technology, as a tool, to record the field and then re-immerses students back into the field using virtual reality headsets to re-live, reflect and re-experience their filming processes, alongside the researcher.*

## **Introduction**

This discovery article charts the journey to completion of a pilot study utilising a method of VR elicitation with 360-degree video. It aims to enable reflective and reflexive conversations and shared understandings to occur about ways in which student filmmakers perform health and safety (H&S) risk management on their film shoots. Initially, the work looks at the literature of working in a tripartite environment in higher education (HE) (Kerrigan et al., 2011; Oughton, 2013), which is summarised below and then goes on to consider literature around risk as imagined and risk as performed (Borys, 2009; Hale and Borys, 2013) before outlining the literature that encourages student participation around concepts of risk (to health and safety) (Kerrigan et al., 2011; Oughton, 2005; 2013). It will then go on to underpin the pilot study method in hermeneutic phenomenology concepts before describing the pilot study of VR elicitation as well as the discoveries made from it. This article will conclude with a consideration of how to move forward to the main study.

## **Context**

There is a gap in academic literature around students relating to the risk assessment process when working independently on media practice degree film shoots (production courses). How do we observe students, and if we do, how do we ascertain their understanding of risk and do we need to close the feedback loop to inform on pedagogy? (Hale and Borys, 2013; Borys, 2009; Lingard et al., 2015). The pilot project looked at ways to learn and share from the student location film shoot experience (where the educator is not present). How might this experience enable students and educators to become co-constructors of knowledge around their filmmaking processes (in particular, health and safety) through a hermeneutic phenomenological approach (Gadamer, 2004) and within an interpretivist paradigm? The research questions that formed the entrance point for this discovery were:

1. In what ways are students performing the process of production risk management on a film shoot?
2. In what ways can a re-immersive and reflective experience, using 360-degree virtual elicitation, work towards a shared interpretation of the processes on a student run film set where the educator is not physically present?

### **Mapping of the literature**

This section explores literature on the regulatory construct imposed on us within HE; it also considers the principles before then exploring the practice. Grounded in the regulatory principles of UK legislation, Health and Safety at Work Act 1974 (Crown), this first section explores both cross-disciplinary literature as well as the limited literature in the field of health and safety and filmmaking in HE.

### **Legislation**

The Health and Safety at Work Act 1974 (Crown) is now over forty years old. The act was a result of the Robens Committee findings and at the time was heralded for its forward-thinking approach which involved goal-setting for commercial firms (Lewis, 1975). It moved away from the dictatorial authoritarian language of The Shaftesbury Factory Act 1833 (HSE, 2018a) describing it as more ‘self-regulatory’ and ‘enabling’ (Lewis, 1975: 442). Looking at the Health and Safety at Work Act 1974 (Crown) in a contemporary light, it is clearly dated in the language used: the use of ‘him/his’ becomes an indication of the gendered position of men in working society of the 1970s. Contrary to Lewis’ analysis of the 1974 Act, the authoritarian voice of the legislation still suggests a top-down approach using words such as ‘duty’, ‘imposing’, ‘control of (premises)’, ‘power’, ‘punishments’, ‘authority’, ‘failure’, ‘liable’ (1974: 4-10). This authoritarian voice also brings to the fore a common-sense approach to health and safety which had been missing in previous iterations of the legislation. This was the ‘modern’ voice of reason that Lewis (1975) was advocating, using terms such as ‘reasonably practicable’: ‘It shall be the duty of every employer to ensure, so far as is reasonably practicable, the health and safety and welfare at work of all his employees’ (Health and Safety at Work Act, 1974: 2).

The term ‘health and safety’ is now ubiquitous in all commercial and civil environs in the UK and beyond. It enters our everyday lives from a young age with schools required to interpret the legislation and complete risk assessments for activities (HSE, 2018). The Health and Safety at Work Act 1974 (Crown) does not attempt to define these terms. In everyday parlance we tend not to separate the two but it is perhaps useful to start to look at how these have been socially constructed individually. ‘Risk is only what people choose to say it is’ (Johnson and Covello, 1987). Law makers and industry leaders impose on us *their* principle of what risk *is* by creating regulation and hold us accountable for any non-compliance in practice in this area. With this constructivist gaze (Berger and Luckmann, 1971), this study will therefore investigate the tensions in how students (who are not employees) choose what ‘risk’ is when in the field of their practice, with the expectations of those forming policy within institutions, largely as a result of government legislation. At the moment, we do not fully understand this tension, although, as tutors, we may have different levels of confidence in how the risk is ‘imagined’ when it is written down as an assessment of risk prior to the activity taking place. Consequently, we, as researchers, need to better understand how risk is ‘performed’ when the activity is actually taking place (Almklov, 2017; Borys, 2009; Hale and Borys, 2013).

## **Filmmaking and Risk Assessment in HE**

Nicholas Oughton has published three articles relating to this area of study, with papers dated 2005, 2011 (co-authored with Kerrigan et al) and 2013. The latter article builds on the arguments of the former two, and whilst written from an Australian perspective, the approach to H&S (occupational health and safety) or H&S (health and safety) is based on similar regulatory paradigms to those in the UK. The following points summarise three themes from the articles that resonate with my research field:

1. They highlight the *paradoxical nature of working in a tripartite environment*; education that teaches industry practice whilst complying with HE rules (Kerrigan et al., 2011; Oughton, 2013).
2. There is an emphasis on risk processes up to the film shoot taking place – again, risk ‘*as imagined*’ – but little emphasis on exploring the risk assessment ‘*as performed*’, despite mentioning it as part of the reason for creating a new occupational health and safety (H&S) paradigm for creative work (Oughton, 2013, 2005; Kerrigan et al., 2011).
3. They introduce the idea of *student participation in health and safety policy* and risk management and valuing that participation (Kerrigan et al., 2011; Oughton, 2013, 2005).

These studies are valuable to this research project due to the limited availability of other comparable literature. This review will go onto explore these three themes, drawing on further cross-disciplinary literature.

### **Exploring the paradoxical nature of working in a tripartite environment (Theme 1)**

Kerrigan et al (2011) and Oughton (2013) both acknowledge the limited literature around H&S in filmmaking and H&S in HE filmmaking. Oughton (2013) also suggests we are failing students in HE who work under an outdated authoritarian H&S system only to leave and immediately become their own boss entering a freelance screen industry. To further contextualise this debate, we can look cross-discipline to the literature on health and safety in higher education chemistry laboratories and discover the tensions between teaching whilst working within the policy confines of HE. Goodwin, Cobbin and Logan’s paper (1999) on H&S in chemistry labs highlights two areas that are still current. Firstly, concerning H&S, there is a suggestion that ‘the quality and quantity of information taught have the potential to be variable, being dependent on enthusiasm and knowledge of individual staff members’ (Goodwin, Cobbin and Logan, 1999: 1227).

Goodwin, Cobbin and Logan’s research (1999) reveals variations in quality and quantity of H&S delivery in chemistry programmes, and we could correlate that with Hill and Finster (2013) and Gibson et al (2014) who remind us of the tension between academic freedom and health and safety. Describing academic research centres or departments as academic ‘fiefdoms’ (Hill and Finster, 2013: 29), it is suggested that a fatal chemistry lab accident (in the US) was as a result of clusters of academics and students working within their own *fiefdom*, with their own preferred methods of safe working. Hill and Finster (2013) move the debate along by pointing out the differences in the organisational structure of HE compared with the lines of accountability in a traditional business organisation. In particular, their research discusses the accountability at the bottom being a lot more unclear in HE, where students are not employees. The results of the accident investigation was the call for a more standardised set of processes across HE (Gibson, Schröder and Wayne, 2014), which is counter to the call from Hale and Borys (2013) and Dekker (2014) who are suggesting that

standardisation is helpful but does not address the restrictions on freedom and innovation. Oughton (2013) suggests that the generic H&S methods are a failing paradigm in the creative industries and in creative production education. It is in this section that we can see the complex results of working in the tripartite environment that Oughton is referring to in theme 1 – namely, education that teaches industry practice whilst complying with HE rules.

### **Exploring concepts of work as imagined and work as performed in relation to risk (Theme 2)**

Working with H&S risk in production-based courses focuses on instruction and form filling. It does not focus on understanding, interpretation or practice. Borys, Hale and Almklov suggest there is a disconnect between risk as imagined (the writing of a risk assessment, imagining what hazards and risks could be posed from an activity) into risk as performed (carrying out the actions that have been written down to reduce the risk of a hazard occurring) (Hale and Borys, 2013; Borys, 2009; Almklov, 2017). Pink et al. (2010) used visual ethnographic studies to investigate the tacit knowledge of migrant construction workers. Their studies highlighted two areas that link to risk as imagined and risk as performed. Through ethnographic observations, it revealed that the migrant workers, working on a building site (using English as a second language), used nodding in their safety briefing to indicate understanding. Those delivering the briefing took this to mean the safety video had been understood and all workers signed to confirm this. The nodding was in fact a transference of tacit knowledge that ‘nodding’ was required of them at that point so that they could go on to do their day’s work. It was not an indication that the safety briefing was understood as managers thought (Pink et al., 2010). The risk as imagined (by construction safety managers) will, therefore, never be the same as the risk as performed (by migrant workers). The study went on to discover the ways in which migrant workers used ‘existing communication channels through which migrant workers enact safe working’ (Pink et al., 2010: 657). When looking at students working on film shoots, we could view them through the same lens as the migrant workers: working with a new language, the language of television and film (and all the jargon that goes with it) and question whether they are using other communication channels or knowing in practice to keep themselves safe (Pink et al., 2010; Molander, 2015; Schön, 1983). My research is looking at ways of revealing a ‘knowing in practice’ of a student group who are working independently of an educator.

### **Considering student participation in risk management (Theme 3)**

Encouraging students to take a more participatory approach to health and safety informs the thinking around my own research focus. The use of participatory video in research on construction sites saw possibilities for this method to be used to help bridge the gap in health and safety pedagogy (Lingard et al., 2015). ‘Participatory video has potential to engage workers in the design of the workplaces or systems of work that might affect their health of safety’ (Lingard et al., 2015: 743). This is similar to Oughton’s call to involve students and embrace risk as an asset on film shoots. Considering risk as an asset has an effect on crossing learning thresholds (Meyer and Land, 2005) that we can see in practice in the section that outlines the findings of the pilot study. In that section, we see the reflective articulation by the student participant of bringing two aspects of production together – shot listing and cold weather – to make the learning leap, witnessed by the educator. These authors are suggesting that systems of work are produced to complement the specific practices of the workers (Pink et al., 2010; Oughton, 2005). This goes away from regulating worker behaviour towards a more holistic way of looking at the system (Oughton, 2005; Lingard et al., 2015). As Pink et al state: ‘Such recommendations run counter to the health and safety orthodoxy which tends to focus on the standardization of safe working practice rather than on the acknowledgement

and interweaving of existing practice’ (Pink et al., 2010: 657). My research will pick up on the calls of Oughton, Pink et al, Hale and Borys, and Almklov for a more holistic and participatory approach, and will do so by looking at ways that students perform the risk assessment and explore the use of visual tools to generate a space for shared meanings and understanding.

This summary reveals ways that HE is teaching industry practice under institutional regulatory systems. This has led us to look at ways in which physical risk is imagined and then performed and the opportunities to embrace risk and enable a more holistic, reflective and participatory approach to doing so. As a result, it is suggested that bureaucratic and standardisation of processes can hinder innovation and yet academic fiefdoms can also lead to serious issues (in this case, threats to health and safety).

With the field mapped, this article will now move onto considering the conceptual framework for the pilot study. In order to answer the research questions, a hermeneutic phenomenological approach was chosen. This approach underpins the uncovering of knowledge by ‘bridging the gap between the familiar world in which we stand and the strange meaning that resists assimilation into the horizons of our world’ (Gadamer and Linge, 2008: xii). One way in which we can look at how this knowledge is being presented to us is by working with the concept of the hermeneutic circle (and in analysis, using the circle to create cycles of interpretations).

### **The Hermeneutic Circle**

The hermeneutic circle, first conceived by Schleiermacher (Schmidt, 2014; Gadamer, 2004), is one where the whole and parts of a text (or in the case of this research, a discussion of an event) are looked at and interpreted in a circle which spins out centrifugally (sometimes referred to as a spiral (Brinkmann and Kvale, 2015)) and this expansion further adds to our understanding of the part or the whole of the event. Gadamer suggests that this ‘whole’ and ‘parts’ can be understood by thinking about how we understand ancient language. ‘We learn that we must “construe” a whole sentence before we attempt to understand the linguistic meaning of the individual parts of the sentence’ (Gadamer, 2004: 291).

### **Fusion of Horizons**

Gadamer (influenced by his teacher Heidegger) took the hermeneutic circle into an ontological perspective by adding the concept of the fusion of horizons, which takes both the parts and whole and from that integrating it with the interpretations of ‘I’ (researcher) and of ‘Thou’ (research participant) (Scheibler, 2000; Gadamer, 2004). This fusion is what Holzer (2011) describes as a *second* hermeneutic circle. It foregrounds prejudice and bias as part of a fused action of interpretation, moving back and forth between the text and the reader or the researcher and the research participant. This is the idea of ‘openness’ and is a way of ‘safeguarding the rights of the Other’ and that in doing so ‘seeks to demonstrate that the Other *might* be right and thus places an emphasis on the intersubjective, rather than the subjective dimension’ (Scheibler, 2000: 61). Holzer (2011) suggests three ways of working towards a fused horizon (a way of being open to alternative interpretations) within this second circle:

‘Listening to the otherness of oneself’  
‘Listening to others who partake in the study’  
‘Listening to the ‘otherness of the text’’  
(Holzer, 2011: 120-121)

These cycles of interpretation along with Holzer’s suggestion of approaches to listening are useful tools to operationalize a methodological approach to the material gathered from the pilot study. This article will now look at ways of putting this philosophical viewpoint into practice with a pilot method that draws on the cycles of interpretations. The aim of the study was to test the 360-degree camera technology and associated VR viewing as being a suitable method to answer the research questions for the main study.

**Drawing on principles of reflective methodologies to create a research method**

The key challenge in terms of this research design is the notion of seeing ways that students work with risk on their film sets when they are independent of the educator. The design, as mapped out below, utilises a two-stage approach to data collection (which from here-on-in we shall refer to as ‘cycles of interpretation’). Stage 1 utilises a visual tool: a 360-degree camera to capture 15-minute film clips of students working on their film shoots. These clips are used in Stage 2 where a student/participant immerses themselves using a virtual reality visor (VR visor) and watches the film clip directing their gaze as they choose. The design of this stage allows the student/participant to watch the 15-minute film clip, without any prior discussion about content or direction, whilst having an informal conversation with the researcher/educator (myself). Once viewed the student/participant and researcher/educator read the production risk assessment together and then the student/participant re-immerses herself once more and watches the same film clip, from her chosen perspective, whilst again having a conversation with the researcher/educator.

This section will briefly consider photo and film elicitation as a reflective method and then draw on some concepts around virtual reality in education to place the method within the research design. It will conclude by foregrounding a method of VR elicitation.

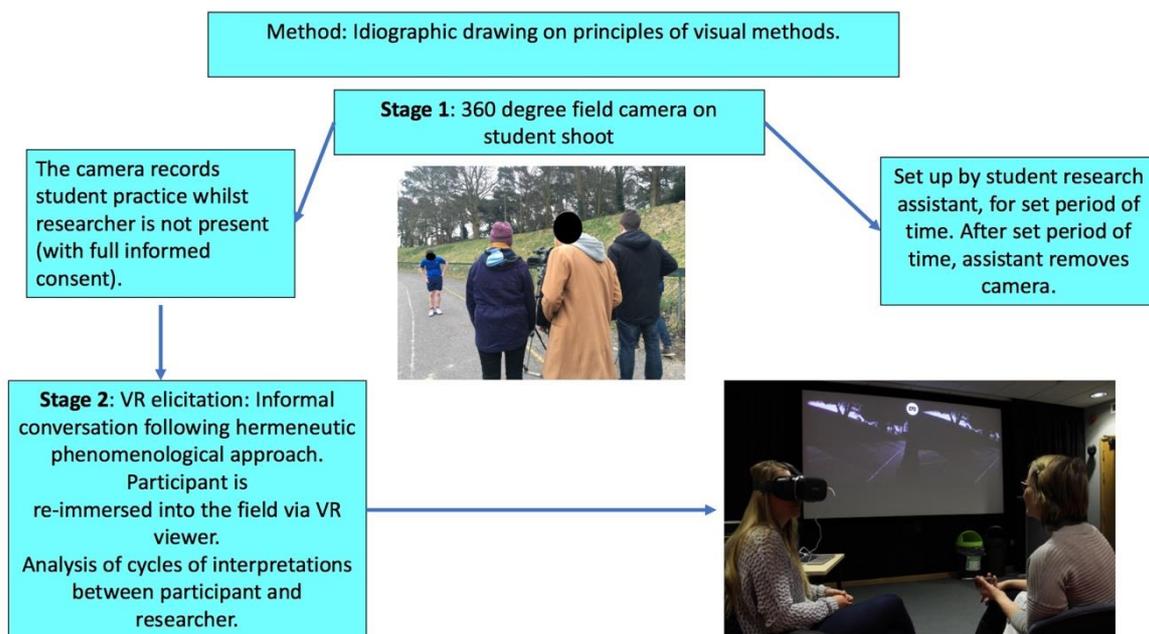


Figure 1: Visual representation of Stage 1 and Stage 2 of the research method.

The piloted method employs a 360-degree camera as a *tool* (see Figure 1) and VR playback for reflective interactions (or cycles of interpretation) and elicitation. The camera and film clips are a *tool* that serves interpretation and seeks to limit any criticism that the film clip is

the subject to be analysed. The cycles of interpretation will be the conversation about the film clip that is under the agency of where the participant guides us with their virtual reality moving perspective (see [Video Clip 1](#)).

### **Photo and film elicitation**

Photo elicitation asks research participants to look at a photo or watch a film. An interview is then conducted by the researcher to elicit meanings from the participants on what they see. Photo elicitation can inform the execution of the informal interview when one considers that according to Clark-Ibanez (2012: 7) ‘the most common experience conducting photo elicitation interviews (PEIs) was that photographs spurred meaning that otherwise might have remained dormant in a face to face interview.’ The idea of dormant meanings I can map to the dormant potential to cross a threshold in understanding (Meyer and Land, 2005). Clark-Ibanez goes on to discuss that concentrating on a photograph (or, in this case, video) lessens the awkwardness of the situation for a participant. Cousin (2009: 214) points out how photographs and other visual forms can transcend language because they often ‘elicit more expressive and emotional responses than would, for example, language-based conventional interviews.’ An example of work that resonates with this proposed method is the film-elicitation of a small group of people who were filmed watching themselves in a documentary (see ‘Jero On Jero: A Balinese Trance Séance Observed’ (Connor, Asch and Asch, 1980)). Key findings from that analysis were that one participant, aware of the camera filming her, watching the film back, used the opportunity to ‘correct any (mistaken) impression that viewers may take away from the earlier film’ (Banks and Zeitlyn, 2015: 95). This has similarities for my research and whilst described as potentially a restriction to the work, this kind of commentary from the participant is to be welcomed in a hermeneutic phenomenological approach. This approach will foreground and make valid any participant or researcher bias and reflexivity and open up grounds for shared understandings and meanings.

### **VR in education**

This article defines VR as an immersive experience of a 360-degree live action film. ‘The question isn’t whether the created world is as real as the physical world, but whether the created world is real enough for you to suspend your disbelief for a period of time’ (Pimentel and Teixeira, 1993: 15). This immersive experience, described by Pimentel and Teixeira in the first wave of VR from the 1990s (Jones, 2017) can be brought up to date with VR in education which further enables this suspension and opens up the possibilities for deep reflection.

The research tools used in the pilot method will enable a student to re-look at the film shoot, and the student group performing it, from the perspective of the risk assessment. The work of Falconer (2013b) investigates student learning within an immersive environment via ‘Second Life’. In this study, students took on an avatar and entered the virtual world where hazard accidents could be studied. (‘An avatar is any digital representation (graphical or textual), beyond a simple label or name, that has agency (an ability to perform actions) and is controlled by a human agent in real time’ (Bell, 2008: 3)). The case study found that virtual worlds enabled educators to ‘see students learning’ (Falconer, 2013a: 259) and the crossing of thresholds. This is further bolstered by the outcomes of a study by Falconer and Savin-Baden (Savin-Baden and Falconer, 2016) that suggested that we look towards recognising ‘learning leaps’ across the moving threshold of liminality that virtual worlds afford and that this will allow a ‘pedagogical shift to occur’. Whilst this study is not a simulation and students do not take on an avatar, the pilot study, testing the tools and the method, suggests

that there is the potential to see learning and the crossing of thresholds between both educator and participant. In the medical profession learning leaps are currently being afforded through verbal communication and non-verbal gesture through the work of Nick Peres whose PatientVR enables a 'series of immersive live action 360-degree film experiences from the patient perspective' (2015: 1).

Rheingold takes on Randall Walser's concept of calling creators of virtual worlds 'spacemakers' (Rheingold, 1992: 192) and that we 'can never hope to communicate a particular reality, but only set up opportunities for certain kinds of realities to emerge' (Rheingold, 1992: 286). This pilot project sought to discover the possibilities of using immersive tools not to re-create reality but to elicit a reflective and reflexive re-experiencing of an event in a shareable form, with the viewpoints under the agency of the participant.

### **VR elicitation**

The above consideration of visual methods and VR in education leads to the method for the study which, based on the consideration of the reflective and reflexive mode of the aforementioned methods, I am calling 'VR elicitation'. This type of VR elicitation is different to that as outlined by Orefice et al. who use the term in their research on emotion elicitation (2017). My method proposes a two-stage approach that sees a 360-degree camera placed onto a film shoot and then re-immerses a student participant back into the shoot, at a later date, whilst having a conversation with the researcher/educator. In order to get a glimpse of what cannot be seen by the educator, this work is attempting to reach into and through the student experience by witnessing the student participant revisiting and re-experiencing the film shoot from a new immersed, embodied perspective. This work is therefore not looking at the film clip captured but looking *through the lens of the student watching the film clip*. The 360-degree capability adds an immersive experience for the student and allows the participant to have agency over their viewing perspective (Bell, 2008). We have already looked at some of the limitations of visual methods, as outlined above. This VR elicitation method gives us one more: the concept of being watched through a panopticon, as originally suggested by social theorist Jeremy Bentham in 1787 (Bentham, 2008). In the case of this research, the panopticon is the 360-degree camera and 360-degree film clips. This means that the researcher always has their eye on the participant. Whilst this is true, the 360-degree viewing experience also allows the person viewing the VR film clip (the research participant) to place themselves metaphorically into the centre parapet of Bentham's panopticon (2008). This gives them agency as well as a new set of perspectives to share with the researcher from which to create new knowledge and to potentially cross thresholds together. We should be mindful, however, of concealed institutional power (Foucault, 1991). Foucault reminds us that anyone can take the metaphorical power position in Bentham's inspection lodge: 'Any individual, taken almost at random can operate the machine: in the absence of the director, his family, his friends, his visitors, even his servants' (Foucault, 1991: 202).

The warning to heed with the method of VR elicitation is about concealment of power. The choice of a 360-degree camera is not about removing the power of the researcher, or indeed the power of the institution, but is more concerned with moving the research participant into the centre of this potentially concealed power dynamic. The student participant will have their eyes on themselves and also on their peers (Foucault, 1991; Sheridan, 1980). Moving from the pilot into the main study, the cycles of interpretation will need to be mindful of the power shifts that are likely to ebb and flow.

This section has explored the principles being drawn on to underpin the method for the research design. It has considered the reflective and reflexive practices that enable the potential for threshold concepts to be seen and warns us of the power tensions evident within educational practice-led research (Land, Meyer and Smith, 2008; Foucault, 1991). The method, drawn from a hermeneutic phenomenological methodology, moves through to the analysis by cycles of interpretations. This is explained in the pilot study summary to follow.

### **The pilot study described**

The pilot study took place within a HE institution in the UK that has media production undergraduate courses. Research participants were second-year students on a three-year course. The pilot aimed to discover how the technical setup and workflow aided the gathering of the cycles of interpretation and whether it is an appropriate tool and method to take into the main study. The initiation of the pilot study began by breaking down requirements of the fieldwork into two stages:

Stage 1: 360-degree film clip capture of a student film shoot;

Stage 2: virtual re-immersion, of one student, back into the film shoot whilst having an informal conversation about the experience of re-immersion.

### **Stage 1: 360-degree capture of student film shoot**

A 360-degree camera was placed into a second-year location film shoot on an undergraduate media production degree programme. It captured film clips of two x 15-minute sessions. The first recording captured the setup of the shoot and the second captured the shoot halfway through. A first-year media production student research assistant was brought in to place, operate and oversee the camera in lieu of the researcher being physically present at the shoot. Whilst this did not remove the presence of the researcher, it did mean that the student/participants were more comfortable with a peer than with a member of staff observing them. Discussions took place between researcher and assistant prior to the shoot day, about where the research assistant might place the camera.



Figure 2: The student film shoot.

### **Stage 2: VR immersion back into the film shoot**

Two days after the 360-degree film clip capture, Student 1, the research participant, met with the researcher in a university screening room to be re-immersed into the field. This re-immersion was via the film clip on a smartphone slotted into a VR headset (see Figure 3). The student/participant watched two different sets of film clips through the VR headset each time watching the first clip (approximately 15 minutes in duration) without any prior discussion about content or steering. During this viewing, an informal conversation occurred (see [Video Clip 1](#)). We then stopped, removed the visor, and together read the paper risk assessment that was produced for their film shoot. Having read that, the student participant then re-watched the same 15-minute clip, whilst having a semi-structured conversation with the researcher/educator.



Figure 3: Student participant wearing VR visor

During the interaction, which was approximately 1 hour 10 minutes, the informal conversation was recorded, whilst the participant was immersed in the VR headset, watching the film clip. Alongside the student/participant, the researcher viewed a partially mirrored copy of what the student/participant was viewing (see Figure 4). The researcher view, which was mirrored onto a screen, displayed like a pair of glasses lenses with identical images in each lens.



Figure 4: Image showing Student 1 with headset and mirrored view on laptop and cinema screen.

## **Pilot study findings**

### **Challenges with technical set ups**

The pilot study has highlighted various challenges in working with technology within HE. WIFI connectivity from the phone (in the VR visor) to the screen on the laptop (mirroring) was tested away from the institution. Once within the institution the WIFI signal was blocked, meaning hard wiring into the laptop was required, reducing the freedom of movement when wearing the VR visor. Moving forward further IT support will be put in place to enable the WIFI to work as intended.

### **Threshold crossing**

The pilot saw the potential to see the participant crossing threshold concepts whilst engaging with the cycles of interpretations during analysis (Land, Meyer and Smith, 2008; Gadamer, 2004). In this particular case, the core concept of why we carry out pre-planning in film work and the core concept of why we carry out risk assessment came together into risk as performed (Borys, 2009) and we witness the participant crossing a threshold. This can be seen in the following three video clips:

#### **[EMBED [Video Clip 1](#)]**

(1<sup>st</sup> viewing prior to looking at risk assessment with researcher/educator).

Student participant first immersion back into the film shoot. The participant is looking around and wondering what they are all waiting for.

#### **[EMBED [Video Clip 2](#)]**

(2<sup>nd</sup> viewing, having looked at the risk assessment with researcher/educator)

Student participant spends some time watching what they are doing. Then makes the link between not following the shot list and the actor/participant getting cold outside.

#### **[EMBED [Video Clip 3](#)]**

(Continuation of 2<sup>nd</sup> viewing, having looked at the risk assessment with researcher/educator)

Researcher/educator clarifies what the student/participant has just said (about clip 2) as part of the cycles of interpretation and the creation of shared meanings (Gadamer 2004)

## **Power dynamics**

The process of analysis and subsequent findings revealed a power dynamic emerging whereby a student sought to limit their exposure to being wrong. Sheridan's interpretation of Foucault suggests that interpretation of meaning links to power and power always come from the institution. It is never context-free (Sheridan, 1980). Ball also references Foucault in discourse around education and policy: 'In any society the production of discourse is at once controlled, selected, organized and redistributed according to a number of procedures whose role is to avert its powers and its dangers, to master the unpredictable event' (Foucault, in Ball, 2006: 26). Whilst the participant is having a conversation with me (the researcher/educator) I am aware that, at times, the participant is displaying their knowledge on risk management to me. In this respect, I am the representative of the institution, i.e. the tripartite environment where the student is studying within higher education under The Health and Safety at Work Act 1974 (Kerrigan et al., 2011). The institution of the British legal system metaphorically sits with us in the room. This can be seen when the student/participant highlights a process of running backwards with the camera (the safety person is called the 'spotter'). She linked it to the risk assessment saying 'Well obviously, we got someone to spot me as I was doing it and then I think Crew member 2 tried as well so that we both had tried doing it, taking the shot and at least we had someone spotting us.' The student/participant is showing me, the tutor, her knowledge and application of professional processes and is keen to be seen in this light.

## **Knowing in practice**

The student/participant had been taught the concept of 'spotting' to keep a fellow filmmaker safe when moving backwards with the camera and this was evident in the written risk assessment. She pointed out an example of knowing in practice (Pink et al., 2010; Molander, 2015), describing her action as she directs the viewpoint to herself back on the screen: 'And then I was holding her shirt.' In addition, her peer had told her to pick up her feet 'so I don't fall over.' This was how the student/participant had made meaning of risk and embodied risk on the shoot. This was a good example of student interpretation of the 'risk as imagined' into 'risk as performed' (Borys, 2009; Hale and Borys, 2013). As researcher, I did exercise my power knowledge by pointing out that this was well done, but observed that the spotter (Student 1) was not looking where she was going thereby increasing the risk of two people falling, not one. This power knowledge exchange is not necessarily a negative one and can be viewed as one that has emerged out of shared readings. This is an example of a fusion of horizons whereby the researcher and participant are open to each other's interpretation of an event as they attempt to reach a shared understanding (Gadamer, 2004).

From the analysis of the cycles of interpretations, three themes have thus emerged:

1. There is potential for researcher and participant to experience a crossing of a threshold (Meyer and Land, 2005; Savin-Baden and Falconer, 2016) in shared understanding.
2. We need to be aware of the power dynamics (Sheridan, 1980; Bentham, 2008).
3. It is possible to see knowing in practice (Pink et al., 2010; Molander, 2015).

The pilot study has been an essential step towards operationalising the research design. It has tested the technological aspects as well as trialling a method of semi-structured conversation with a research participant about their practice. The analysis has utilised hermeneutic phenomenological principles reflectively and reflexively through cyclical interpretations involving both the research participants and the researcher.

## Conclusion

Risk as imagined and risk as performed has been the starting point for this research, thinking about who might be harmed and how through our actions and questioning the social construction of risk within this space. The research method of VR elicitation under a hermeneutic phenomenological conceptual framework has allowed for a rich and deep discussion about filmmaking processes undertaken when an educator is not present. This has been under the agency of the student participant who has taken us on an immersive journey back into their film shoot. The method allowed for new shared understandings of ways through which students are keeping themselves safe. Introducing a VR elicitation enabled an embodied experience that is reflective and reflexive, not just for the participant but also the researcher/tutor allowing a deeper insight into ways that risk is being embodied and performed on student film shoots. Moving forwards to the main study, there will be a consideration of ways to upscale this to include other members of the film crew to be immersed reflectively back into their student film shoot. Further research is required around how we conceive presence, in the practice of VR elicitation experience, and ensure the work remains grounded here. In doing so, this will be a research project that will allow for a deep description of the experience.

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