

Title: Perceptions of realism in digital scenarios: A mixed methods descriptive study

Abstract

Enquiry-based learning is a well-recognised tool in nurse education internationally. It is a pedagogical activity formed around the construction of a 'scene' that provides a platform for critical enquiry. A growing range of technologies are now used to simulate real-world enquiry. However, the characteristic of authenticity is essential for effective learning. The aim was to create a stakeholder group to explore the quality and presence of authenticity in scenarios presented through digital media. A co-productive active learning approach explores perceptions of authenticity using an authenticity scale. Stakeholder facilitated workshop discussions explored perceptions of the educational scenarios. Participants included mental health nursing students, people with lived experience and family caregiver. A mixed-methods descriptive study using the adapted authenticity scale to rate four exemplar scenarios along with thematic analysis of workshop discussions. We found digital audio compared less well to visual media in authenticity scales. Still photobook style images were also perceived as less authentic than dramatic film employing professional actors. Digital media must be selected carefully not just in relation to the education needs of the student but in relation to their social, cultural norms and digital skills. Creating digital scenarios co-productively could contribute to a teaching resource that holds authenticity and real-world relevance. (198)

Highlights

- Digital media needs to be selected carefully to enhance authenticity
- Co-creation of scenarios promote real-world relevance
- Increased authenticity enhances student engagement
- Digital media can be used to challenge stigma and stereotypes
- Authentic scenarios are essential for mental health nurse education

Keywords: Enquiry Based Learning, Mental Health Nurse Education, Authenticity, Co-production, Scenario

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Introduction

This research seeks to explore educational scenarios presented through digital media, for example through film, audio and other narrative forms and their capacity to provide an authentic learning experience. As the prevalence of online learning continues to accelerate in higher education (Stott & Mozer, 2016), effective online, accessible learning tools need to be identified and recognised as pedagogically effective. The development of online learning education tools in nurse education is acknowledged internationally as being important for nurses to become proficient in using information technology (Raman, 2015). Due to the increase in distance learning and the importance of accessible programmes, nursing bodies globally have called for learning technologies to be integrated effectively into nurse education (American Association of Colleges of Nursing, 2018; International Council of Nurses, 2018; Nursing and Midwifery Council (NMC), 2017). Within the UK there are four fields of nursing practice; Adult, Child, Mental Health and Learning Disability. Mental health nurses work with people who experience mental health distress including young people, adults and older adults. Mental health nurse education specifically was the focus for this study.

Educationalists strive to increase the range of methods to simulate real-world enquiry while maintaining student engagement (Smith & Crowe, 2017). Digital tools may include virtual reality games, drama and recorded role-play. This study focusses on one desirable characteristic of Enquiry Based Learning (EBL) in the digital learning environment, that of authenticity. It is known that if the learner, in this case student nurse, perceives the scenario to be 'authentic', the quality of engagement will be deeper and in turn, its value as an effective learning tool will be greater (Herrington, Thomas, & Reeves, 2010). EDUCAUSE, (2019)

identify creating authenticity in online and blended learning technologies as one of the most significant challenges for higher education institutions. However, what is less well known is how the characteristic of authenticity is created nor how its presence or otherwise supports learning. Understanding this will enable teachers to be confident that the scenario-based resource they are selecting is likely to produce the level and depth of critical enquiry sought after so that theory practice connections are meaningful and effective.

This research focuses on a comparative analysis of digital media (audio versus film for example) and the ability of each to convey realism and authenticity. Co-production in nurse education is said to enhance learning (McIntosh, 2018) and the inclusion of people with lived experience of mental health problems and family caregivers of people with mental health problems in nurse education is embedded in policy from an international perspective (Benbow, Taylor, Mustafa, & Morgan, 2011; Happell, Moxham, & Platania-Phung, 2011). Two co-productive, facilitated workshops that included second and third year mental health student nurses, people with lived experience and family caregivers, provided the data for this research. Participant's perceptions of authenticity via an adapted scale along with workshop transcriptions were examined in depth. The group continued to work co-productively with the objective of creating new scenario-based resources suitable primarily for online and blended learning.

Background

EBL has a long history in nurse education. Previously described as Problem Based Learning this approach uses scenarios developed for education purposes, generally presented in text-based form for use in face to face or online learning environments. Often short accounts of 250 – 500 words, they provide an outline of the presenting issues, background and key issues,

with stem questions, that are pre-set questions to provide a 'hook' for students to engage with the enquiry. The function of the scenario is to stimulate the learner to imagine themselves in a potential real-world situation and to consider how and why they would they respond in such a situation (Cleverly, 2007).

Knowledge acquisition begins through investigation of the scenario stem questions and then continues to be constructed as students come together and are facilitated to question and challenge assumptions and beliefs (Stacey, Oxley, & Aubeeluck, 2015). EBL provides an excellent opportunity for individuals to become attentive and responsive to conflict in personal and professional moral norms of belief and behaviour. This has the potential to support the construction of new knowledge while developing their identity as student nurses. The EBL process is fundamental to a constructivist approach to pedagogy in which new learning is built on and developed from, existing knowledge (Mazur, 2015).

Review of literature

A review of the literature was undertaken in relevant databases: CINAHL and British Educational Index using a key word search: Enquiry Based Learning, Education, Nurse Education, Digital Learning, Authenticity and Mental Health Nursing. The search offered a range of sources that provided the existing knowledge narrative available around this topic.

Herrington, Thomas, and Reeves, (2006) assert that for the scenario to be effective, the student has to feel immersed in situation, an intense engagement with a sense of complete absorption. It is this sense of immersion that enables the learner to connect with personal and professional values and confront dissonance between the domains or where learning becomes transformative (Stacey et al., 2015). Stacey, et al, however, note the potential limitations of using scenarios for learning to include an absence of realism that may result in

student apathy when scenarios are over used, and limited depth in engagement if they are designed solely to meet learning outcomes.

Digital technology use has increased significantly within education, offering wider access and international reach for education institutions looking to increase their student population. Some report that the evidence base for digitally based education is limited (Banas, 2010; Livingstone, 2012; Stott & Mozer, 2016) and those in nurse education seem to have some reservations around the use of technology. Stott and Mozer, (2016) note caution with the increase in use of digital tools without the time to develop and embed them meaningfully within the curriculum. Smith and Crowe's, (2017) interviews with nurse educators revealed the need to maintain the relationship based approach in nurse education whether on-line or face to face. More generally Ertmer and Ottenbreit-Leftwich, (2010) encourage the need for fundamental changes in the way educators view and embrace technology use. They also note that technology introduction, use and related training need to be supported by the institution. Crookes, Crookes, and Walsh, (2013) undertook a review of literature and concluded that nurse education needs to emphasise the practical use of the theory gained in the classroom to ensure student nurses are more engaged with the content. They go on to suggest that an inventory of effective educational tools, including digital techniques would help educational staff.

The effectiveness of EBL is dependent on the level of engagement with the reading of the scenario (Matthews, 2014; Stacey et al., 2015). Reading alone, without interactivity can disincline the reluctant learner, demotivate others, and present a barrier to theory and practice assimilations. Nursing as an activity is somewhat dependent on the capacity of an individual to be curious as well as having an appreciation of individual stories. However, the

felt empathy and relatedness of that individuals story by the nurse engaged in a caring activity, is dependent on socially constructed notions of norms of human behaviour and values (Mitty, 2010). Mitty examines the value of storytelling within the care context and how this can help nurses to connect with people. EBL enables the learner to exercise these norms and values and question their 'rightness' and connect this to the theoretical concepts and practice experience (Stacey et al., 2015). One method of creating authenticity in the scenario is partnership in the construction (Mackenzie & Walsh, 2007; Matthews, 2014; McIntosh, 2018; Stacey et al., 2015).

The involvement of people with lived experience and their caregivers has become not only significant in nurse education (McIntosh, 2018; NMC, 2018; Terry, 2013), it has become an expected requirement of all health and social care services and related professional education programmes across the United Kingdom (NHS Education for Scotland, 2012; NICE, 2013; NMC, 2010; Scottish Government, 2017; UK Government, 2012). The process of coproduction is a methodology more commonly utilised by the non-statutory and non-profit-making health sector and is increasingly being employed in nurse education. Coproduction is an approach where there is equity and reciprocity through working collaboratively with a common, shared goal (Williams, 2010). The ethos of coproduction in the development of education materials provides opportunities for active and meaningful involvement (Rani & Byrne, 2014; Repper & Breeze, 2007), and enhances the presence of realism as peoples experiences are communicated directly to the student. The quality of the learning experience can be transformative in nature as new knowledge and meaning making is generated, if the involvement is articulated authentically (Matthews, 2014; Mckeown et al., 2014; Stacey et al., 2015).

Research Design

The aim of the study was to create a stakeholder group of people with lived experience, family caregivers and mental health nursing students. This group would then explore and inform the qualitative experience of authenticity of scenario-based learning via digital media.

Research questions:

- What are the significant characteristics of a scenario that convey authenticity from the perspectives people with lived experience and family caregivers?
- What are the significant characteristics of a scenario that convey realism from the perspective of student nurses?
- In what way does the digital medium of the scenario and nature of the content influence the strength of the scenario?

Methods

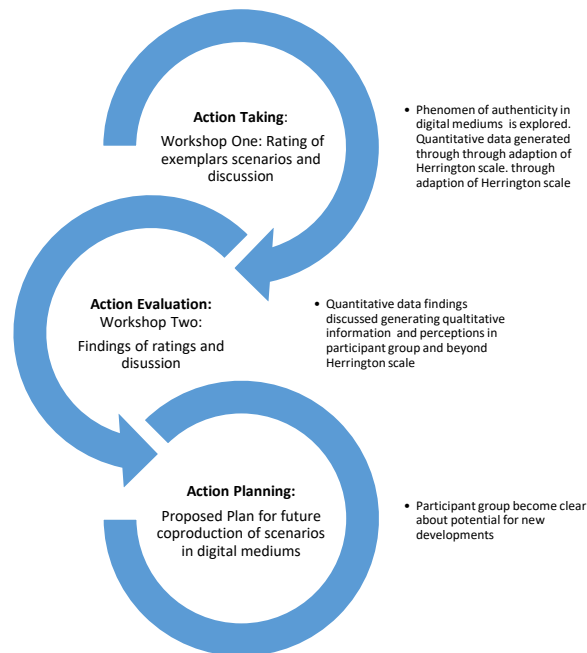
The Educational Management Model of Action Research, (McPherson & Nunes, 2004) was utilised as the enquiry framework (Figure 1). This figure represents the first cycle in the action research process, a process that is revisited, often shown as a spiral, returning to action taking stage as the research develops (McPherson & Nunes, 2004). The McPherson and Nunne (2004) model was selected specifically because of its contextual application to education settings. It provides a framework from which the researcher can apply pedagogically specific design and strategies. Although more recent models exist, this model provides three building blocks that scaffold the nature and purpose of programme design, thus enabling transparency in the action research process. A small group (n=7) of student nurses (4), people with lived experience of mental health problems (1) and family caregivers(2) participated in two workshop activities, facilitated by the researchers, both mental health lecturers. In the first

workshop, four digital scenarios were presented, each using different forms of media. These were: 1. a filmed simulation using amateur actors depicting a health assessment of a child. 2. a fictional narrative using a storybook photo form with voice over that narrated an account of conflict between an individual with substance misuse issues and clinical staff; 3. a film with a fictional narrative using professional actors about a couple both with complex mental health and addiction issues, who were having their first child; 4. an audio podcast of a recording between a couple who talk about their experience of loss and dying. The digital scenarios were selected based on a number of criteria including: relevance to mental health, contrasting digital medium, amateur and professional production and those that present concepts that can be explored within an educational environment. In the first workshop, each of the scenarios were rated individually and without discussion, against an adapted Herrington et al., (2006) Scale of Authenticity. The Scale of Authenticity comprises of ten core characteristics, most of which were relevant to the objectives of the enquiry. However, some were less so as the scale was intended to be comprehensively applied to all online learning activities. To retain a tight focus solely on the exploration of authenticity in digital media the scale was adapted slightly by omitting a characteristic with less relevancy.

As an example, one of these characteristics was around the concept that authenticity could be applied to different subject areas which was not an area being explored in the objectives of the study. The scale contains criterion regarding the capacity of the narrative to hold multiple perspectives and interpretations, the ability of the scenario to stimulate question and debate and the quality of the 'realness' in the context of mental health and mental health nursing. In the second workshops the results of the rating exercise was fed back to the group. Both workshop activities were recorded and transcribed. The transcriptions were thematically analysed by the primary researcher to identify key themes and to highlight the perceived

ingredients that enhance authenticity. Quantitative and qualitative data were then compared and combined to provide an overview of the findings.

Figure 1: Action Learning Process (McPherson & Nunes, 2004)



Sample

A purposeful, criterion-based approach was used to access potential participants for the research. An invite went to all students who were on the undergraduate mental health nursing programme as well as all people with lived experience and family caregivers who had or were currently involved in the teaching and/or assessment in the BN Mental Health Nursing programme. People with lived experience and family caregivers have contributed to the education of mental health nursing students within the institution since 2000 (Masters, Forrest, Harley, & Hunter, 2002). Their contribution includes recruitment and selection of applicants, curriculum development, development and delivery of face to face teaching, development of teaching resources and theory and practice assessment feedback. All those who responded were invited to the initial workshop. Four student nurses attended, two in

second year and two in third year of the programme. Two caregivers of people who use mental health services and one person with lived experience of mental health issues also participated. Those who participated in the first workshop were invited to the following workshop. Seven participants were involved in the first workshop and five were involved in the second workshop, all participants completed the authenticity scale.

Ethical considerations

Full ethical approval was sought through the university's approval committee. Participants who attended the workshops completed a consent form and were informed of the aims and focus of the study. Participants were free to withdraw from the activities at any stage. Workshop recordings were anonymised and stored in line with current data protection and confidentiality guidelines.

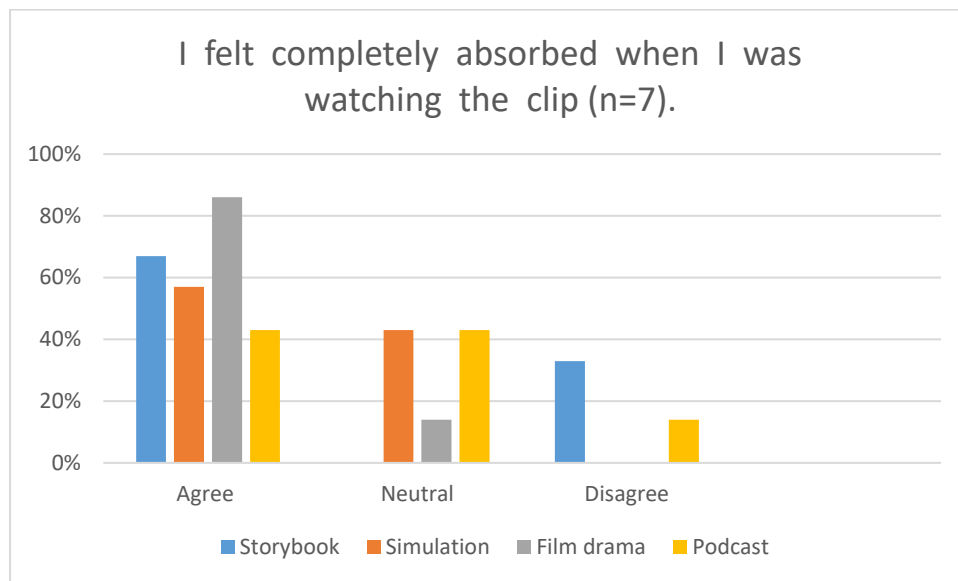
Findings

The findings related to three specific areas; The relationship between the form of digital media, the content and the experience of immersion, The relationship to reality of mental health and mental health nursing and Challenging perceptions and confronting stereotypes.

1. The relationship between the form of digital media, the content and the experience of immersion.

The form of media and the content of the material is significant in tempering the sense of immersion in each of the narratives. Immersion is an essential quality in which the individual experiences a simultaneous sense of absorption with the media alongside a disconnection with immediacy in reality. A sense of immersion is more likely to engage the learner to think and question previous assumptions so that new learning is developed (Herrington, Reeves and Oliver 2006; de Freitas 2006).

Figure 2: Comparison by experience of immersion



In terms of immersive qualities, the audio podcast rated with the lowest level of immersive quality whilst the drama was the highest.

In discussion, the participant agreed that although the activity of listening enabled more room for imaginative engagement, it was considered both as an unpopular and unfamiliar activity particularly to the student group. Listening to the spoken word as a single activity has become increasingly cultural anomaly as digital technology increasingly facilitates multiple occupation. As one student participant comments:

'.....it is quite scary when you think of how much mental health nursing is about listening. We are so used to visuals and yet listening is an essential part of what we do'.

Some participants considered the storybook narrative to also lack immersive quality as the photobook format left participants with the sense that their emotional responses were:

"...manipulated as one prompt picture moves to another"

Thus, indicating a perception that the photograph format intends to create specific emotional responses from the audience. The drama with the professional actors provided the greatest immersive quality. One participant described the effect of:

'.....lean forward and listen'

and of engaging with the social realism portrayed:

"...it [the film] gave a snap shot of their circumstances and their claustrophobia..... you could understand their need for escapism"

Although the reality was questioned at points, the dramatic quality led participants to find themselves reflecting on the content of the film in the following days. They talked of going over it in their minds, with the student participants comparing it to their own experience in practice placements and the participants with lived experience related to the sense of being judged by professionals:

"The doctor made me so angry. They made no attempt to find out what was happening to her. They were so judgemental!"

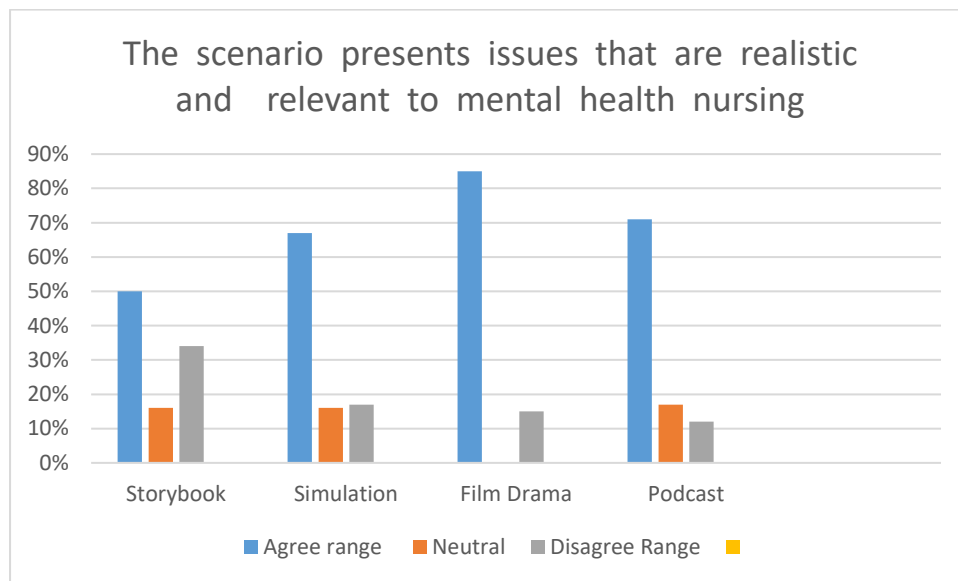
And from another:

"...they weren't talking to her"

"...it reinforced the idea of a bad mother – I felt sorry for her."

Although all forms of media provided some level of immersive quality, the drama was clearly the most powerful, in terms of relatedness to the experience of the participants and holding the capacity to compare one's own values and beliefs with those projected in the narrative.

2. *The relationship to reality of mental health and mental health nursing.*



The participant group considered each of the mediums to hold some connection with the realities of mental health nursing and the experience of mental ill health. However, there were some differences.

The subject of substance use was present in the drama and the storybook. All participants considered it a relevant issue and one that provided diversity and complexity in relation to mental health nursing practice and service user experience. The scenario content was sufficiently balanced and yet provided challenging material for debate and discussion. As one student participant commented:

'I saw this on placement. Patients who used drugs saying they wanted to stay together and I just thought they were being idealistic and foolish.' The film made me think of them again, as people with stories and lives

And another student participant:

'The film brought everything back about working with drug users and I realise that you lose control with you are into drugs – you don't think about the consequences.'

In nearly relation to relevance to mental health the podcast performed less well. At only 53 seconds long, it centres on a discussion between a husband and wife about her impending death. The subject of death and dying was considered less relevant to mental health nursing and mental health more generally.

"...dying isn't a mental health issue..."

However, some responses could indicate a more cultural or experiential reason for not favouring the podcast example:

"...couldn't concentrate, so reduced, ashes to ashes, don't want to think about all of that."

"The images were so dark and black"

"...it took me back, I feel as if I have lived this one."

When the participants came together for the second workshop the podcast was discussed again:

"I think to have conversations about end of life is very difficult'. We don't know what values we will have – it's unknown – we don't talk about it ... it's not like motherhood... we don't know what we will do."

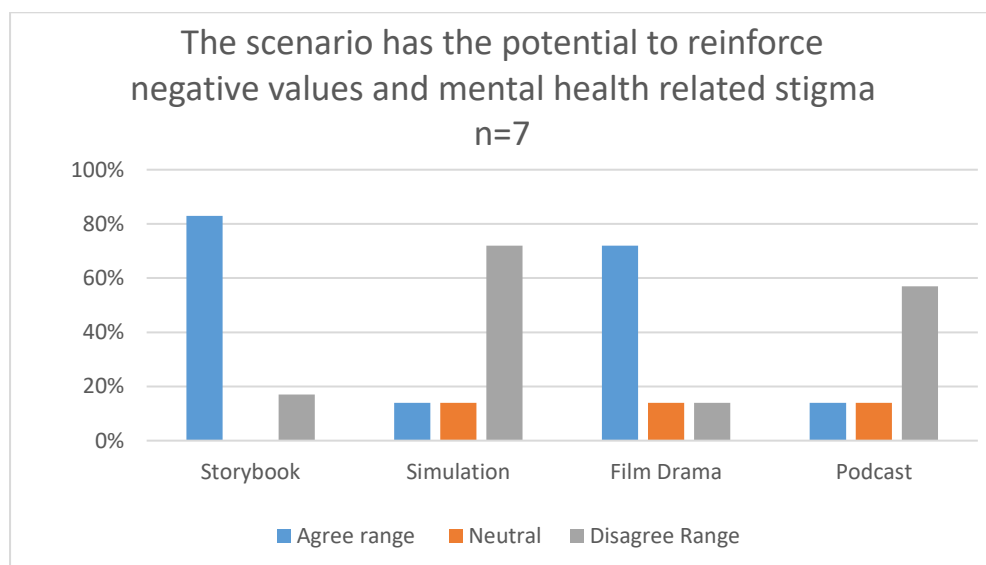
Exchanging ideas and experiences about death and dying will always be difficult. In this instance, the mental health nurses struggled with the relevancy of the issues whilst the service users considered it highly relevant. The construct of reality and whose reality is

projected, in a simulated learning activity is a significant issue of concern in the development of authentic materials and content.

3. Challenging perceptions and confronting stereotypes

Mental ill health is profoundly seeped in attitudes weighed down by stereotypical beliefs and misguided attitudes in popular culture. In contrast ideologies such recovery and person centred approaches expose the need for mental health nurses to focus on relationship based care in which the 'story' of each individual they encounter must be assimilated in a way that feelings are confined and managed (Brook, 2009). EBL enables learners to mix real world experiences with new learning which may initially cause confusion but can then be the foundation of new learning (Dowd, Araujo, & Mazur, 2015). In this enquiry, most participants spoke about the digital media that challenged their understanding, exposed stereotypes or brought to the fore contentious issues in mental health.

Figure 3: Capacity to reinforce Stereotype



Each of the digital media were considered to reinforce stereotypes to some extent. In this question, the podcast was considered most free of negative assumptions, as the visual rather than audio format seemed to more easily entice critical comment.

People with lived experience and family caregivers evaluated authenticity against accumulated understanding of societal constructions and to a lesser extent, against personal experience. Students however, largely evaluated against practice learning experiences with some relatively minor connections to personal experience. It was this difference between the two groups, in the weighting and balance between the personal, the professional and social constructions of health and wellbeing that provided the fertile ground for new learning. However, both groups agreed that scenarios had to hold sufficient stimulus to challenge if new learning is to occur:

“...something needs to challenge how they feel – it needs to be provocative. If it is too straightforward it would be too easy”

“...it’s better to have the challenge in the safe environment of the classroom but I’m not sure. Lots of students talk about their placements and use experiences from there to help them learn”

“...being challenged makes you aware of your values.”

The participant group agreed that digital scenarios provided an important medium for challenging beliefs and that it was important that the story held sufficient level of complexity for exploration and critique if new learning is to be achieved.

Discussion

The three themes that emerged from the qualitative data, along with the related scoring collectively provided a view of perceived authenticity in each of the digital scenarios and the results demonstrate that conveying authenticity in digital media is complex for a number of reasons.

Online learning platforms are now very much accepted as a fundamental to all pedagogy in nurse education. EBL as a form of narrative enquiry is an accepted and well evaluated educational tool that must adapt to this learning environment. Digital media presents an exciting affordance of attracting a range of learners and learning styles. However, we must be cautious and not assume that using digital technology it itself achieves pedagogical aims (Selwyn, 2011). Santos, Gonçalves, and Matos, (2011) found that using narration attracts learners to think in different ways, to challenge assumptions and to question norms of behaviour whilst Brady and Asselin, (2016) found that the narrative approach is a conducive philosophical approach to nurse education. This small-scale study attempted to establish if there was a relationship between the perceived authenticity of the scenario and the media in which it was presented.

The participants rated the audio podcast as the lowest quality of authenticity. This was principally because of the less favoured activity of listening. This confirms the findings of McSwiggan and Campbell, (2017) which suggest that podcasts are required to be structured and shaped to the needs of the learning outcomes to promote student engagement. In addition, the subject matter of death and dying was seen to be less relevant to the group in relation to mental health education. This is somewhat surprising on both counts and perhaps demonstrates that teachers cannot presume to know either preferred learning activities of

students, or what learners consider to be most important. Significantly the simulation using amateur actors and the storybook narrative were considered to have the least immersive quality. As these are two common forms of presenting and developing learning materials for the online platform, there is a need to question their pedagogical effectiveness. However, the storybook narrative did bring to the fore emotional engagement through exposure to contentious and stereotypical presentations.

Exploring whether there is a connection between perceived authenticity and higher order thinking is beyond the scope of this study. However, the findings do suggest that the genre of professional drama, has the capacity to provoke the greatest level of immersion. Herrington et al., (2010) discuss the importance of being able to 'suspend belief' and that this emotional engagement produces interpretive conflict. It is this internal conflict that can provide opportunities to challenge assumptions and beliefs, if the learner feels safe and supported to do so. Stacey et al., (2015) concur however describe the scenario as the trigger to draw on pre-existing knowledge and understanding, it is then the following facilitated discussion and exploration of the related concepts that bring about the opportunity for rethinking or reshaping pre-existing understanding and linking it to nursing practice.

Worth consideration is the balance between scenarios that engage and those that bring learning opportunities. Over attention to the meeting the learning outcomes may limit the authenticity and realism of the scenario making it mechanistic and creating a sense of being directed or led to a particular focus. There may be challenges therefore for educationalists to creating scenarios that provide this balance given the fact that it is within an educational setting that it will be used. Developing scenarios in partnership with key stakeholders could be a way of achieving this balance (McIntosh, 2018; Stacey et al., 2015).

The co-productive nature of the enquiry influenced the scope of the findings as well as highlighting the importance of active and meaningful involvement in developing teaching and learning resources. A limitation of the enquiry is the small size of the group and the scale of the enquiry. Two workshops were too few to really deepen the enquiry findings. As in all relationships there is a need to get to know and trust first, before feeling able to challenge one another's realities. Between the participants, there were signs that this was just beginning. The backdrop for rating a scenario as authentic by the students was largely evaluated against practice learning experiences with some connection to personal experience. In contrast, people with lived experience and family caregivers evaluated authenticity against accumulated understanding of societal constructions and to a lesser extent, against personal experience. These three perspectives (personal, practice learning and societal) provided a richness and depth to developing authentic scenarios. At times, the expressed realities were somewhat polar opposite to one another, and it was this critical tension between the groups that provided the dialogue around which a collective reality could be developed, understood and communicated for future scenario construction.

Limitations

A significant limitation of the study is in the process of data generation. The process of selecting extracts involves a level of judgement and discretion on behalf of the lead researcher and this inevitably means that researcher bias may influence the thematic analysis. It was beyond the scope of this enquiry to have multiple persons analysing the data. Instead, cross checking occurred when data and findings were returned to the participants. This occurred on two occasions and offered opportunity to increase the trustworthiness of the analysis (Rodham, Fox, & Doran, 2015). The first when the results from the quantitative analysis were shared with the participant group in Workshop Two and the second when the findings and

discussion sections of the report were shared with the participant group. A further limitation is the small number of participants which somewhat reduces the relevance; however, the inclusion of students, people with lived experience and caregivers working together offers new insights into collaboration and coproduction in nurse education not previously captured in research.

Conclusion and Recommendations

The enquiry sought to identify new understanding about the nature and perception of authenticity in digital media utilised for scenario-based learning. The findings reinforce those of Mckeown et al., (2014) and Repper and Breeze, (2007) and others, that the characteristic of authenticity can only be produced if there is meaningful involvement of people with lived experience so that contrasting realities to those of the teacher or of the student nurse can form the central bones around which the scenario can be created. The choice of digital media used to present the scenario must be selected carefully, mindful of the digital readiness of the student and of the relevancy of the subject content. Drama that is presented in a fictionalised but professional form, provides the most immersive learning activity. (4948)

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