Developing new learning environments through a third-space reflective practice approach A Case Study:

Developing new healthcare practice learning environments through a third-space reflective practice approach

Abstract: The creation of new practice learning environments for healthcare students promotes the development of professional judgement skills and decision-making. Through the modelling of established practices across other subject disciplines, Healthcare Technicians designed and created the Clinical Skills Lounge. This particular learning environment promotes greater reflection, provides the opportunity for students to learn alongside their peers and encourages inter-professional learning. The development of third-space learning creates opportunities for Technicians to develop their pastoral skills for students and promotes career progression through the Technician Commitment. Student feedback highlights the importance and flexibility of the Clinical Skills Lounge design and opportunities to learn and practice key skills outside of timetabled sessions. Greater confidence and opportunities to further develop decision-making skills were reported by students who use this space.

Keywords: *Third space reflective practice, simulated learning, student support, healthcare education*

Introduction:

Simulated learning has become integral to most, if not all healthcare education curricula over the last decade. Regulatory and Professional bodies such as the Nursing and Midwifery Council (NMC) and the Health and Care Professions (HCPC) actively promote the inclusion of practice-orientated learning via clinical simulation spaces for learning and assessment and the development of core competencies.

This paper sets out the concept, design, and implementation of a new approach to learning and clinical skills development (Clinical Skills Lounge (CSL)) within our healthcare education and research environment (Glenside Campus), which is an integral

aspect of the University of the West of England (UWE), Bristol. At UWE, Bristol we provide all fields of Nursing and Midwifery programmes and many Allied Health Professions programmes, across an educational pipeline that spans Degree Apprenticeships, Degree Programmes, Professional Development modules, Advanced Practice and Doctoral studies.

With over three thousand healthcare students studying at the Glenside Campus, having diverse and innovative approaches to curricula design, assessments and evaluation is important. The evaluation of our healthcare programmes is of particular importance from a professional and regulatory perspective, but also as a way of informing future practice and policy (Cleaver, Lintern and McLinden 2018). This is a key consideration when designing simulation and practice learning spaces on campus, where interdisciplinary learning is encouraged across as many health programmes as possible. Timetabling constraints across the campus create potential challenges in terms of identifying spaces that have a capacity for accommodating interdisciplinary learning for students.

Increasingly, the opportunity for healthcare students to have dedicated time to reflect on their clinical skills, either before or post placement has become an important element of timely progression and completion through a respective programme. This aspect of a student's journey has become increasingly important as highlighted in the B3 student outcomes conditions as identified by the Office for Students (OfS) in England, which focuses on student retention and timely completion of their studies within a registered and approved educational organisation. The development of emerging clinical

techniques and technologies is also important as a consideration for curricula development and assessments (Buckley et al, 2018).

The appropriate design and provision of simulated learning environments for students can help improve clinical skills techniques, such as the insertion of a catheter, intravenous and intramuscular injections, reduce patient complications and improve confidence levels (McGaghie, 2014; Alrashidi et al, 2023). Consideration of spaces that are inclusive through appropriate design models is also important, taking into account the diverse range of students and potential support requirements.

This article focuses on the development of a new approach to supporting student learning and assessments through third-space roles and environments. According to Whitchurch (2008), the concept of the third space relates to cultural theory and the exploration of spatial relationships in contrast to historical positioning around human behaviour.   The use of spatial relationships within health education environments may offer advantages in terms of how students are supported with their learning through alternative roles and environments.

Whitchurch (2012) describes the '*four lenses*' through which third space working may operate and help support emerging institutional activity, particularly within practice-focused environments. The four lenses involve working in new types of spaces, developing new types of institutional knowledge for learners and staff, shaping new types of relationships and creating legitimacy for those involved in this type of activity. In this particular case, Healthcare Technicians were supported to develop and lead the

CSL to promote their roles and develop new types of relationships and networks across the organisation.

The use of the third space (Whitchurch, 2008; Whitchurch, 2012)) through the creation of a dedicated CSL and the provision of student support through the Healthcare Technician team has provided an opportunity to re-evaluate approaches to learning and assessment and promoted greater confidence in our students. This work has also supported the University's response and implementation of the Technician Commitment (UK Institute for Technical Skills and Strategy, 2024), which creates greater visibility for Technicians within Higher Education, promotes career development opportunities and further encourages skills mix within programme teams. UWE Bristol is one of the founding members of the Technician Commitment since 2007 and has progressed different types of roles, visibility, identity and opportunities for Technicians across many subject disciplines, including Healthcare, Science, Engineering and the Creative Arts.

Materials and methods:

The participants that were in focus for this case study included healthcare students and Technicians involved in the provision of learning and support. No specific research framework was adopted for this case study, however the use of Whitchurch's (2012) third space learning and relationship building and Tripp's (1993) professional judgement were used to capture the feedback following the introduction of the CSL.

Using the third-space approach to practice-based learning and support for students (Whitchurch, 2013) and the development of system-level reflection and real-time

professional judgement (Knight, 2023), a case for change was identified through a systematic review of student feedback from the latest National Student Survey (NSS) and evaluation and through cohort progression and completion data.

The development of professional judgement is, according to Witt, Lewis and Knight (2022) important for students as part of their studies, thus ensuring the enactment of disciplinary knowledge and subjective discretionary judgement. In addition, the use of simulated learning spaces will also assist in the development of situational judgement that is transferable to the clinical environment (Knight, 2024).

Using thematic analysis to highlight key qualitative information from healthcare students on programmes in the latest NSS (July 2023), significant value was stated by students on developing clinical skills, being able to practice in safe and supportive environments, without the potential pressures of a real-world placement environment and having accessing to informal support in a unstructured way.

Our healthcare students also provided informal feedback on practical sessions, to help plan for future deliveries and increasingly to ensure the learning environments support the diversity of our student and staff populations. Through the formal and informal feedback captured from students via a feedback log, a high volume of positive comments were particularly attributed to the support provided by healthcare Technicians who predominately work at an instructor or demonstrator level within the School of Health and Social Wellbeing. Several themes from the NSS feedback highlighted the supportive approach provided by Technicians and also the opportunity

to practice gaining confidence before going out on a clinical or community placement as part of the core programme curricula.

Concept and design of the Clinical Skills Lounge:

As part of the University's ongoing involvement and support of the Technician Commitment scheme, there was an opportunity to develop a new '*family*' of Technician roles, spanning across a range of skills and responsibilities. The feedback from students that was captured during NSS cycles and module/programme evaluations highlighted the positive interactions during simulation and practical sessions and a request for a space outside of the timetabled curricula where clinical skills could be practised.

Through a review of the student feedback, the emergence of new Technician roles across the wider organisation and in response to continuous feedback from students pre and post-placements across a wide range of healthcare programmes, the concept for the creation of a third space environment was explored. The creation of the Clinical Skills Lounge and the support provided by the Technicians resonates with Whitchurch's (2012) exploration of hybrid practitioners who worked across different spaces, such as the skills and competencies required by students, but also provided the underpinning theory and holistic support.

Taking the learning from the provision of healthcare education and assessment of healthcare students during the Covid-19 pandemic within our institute, Tripp's (1993) four areas of judgment were explored, with a particular focus on reflective and critical judgement. Tripp (1993) identifies four categories of professional judgement which are

typically referred to for new teachers, can in turn be used to inform approaches to reflective practice for healthcare students:

- Practical judgement, which is undertaken through every action and typically made instantly in practice environments.
- Diagnostic judgement, which is gained through profession specific knowledge and understanding and builds on practical judgement to help students create and interpret patterns or judgements.
- Reflective judgement, linking with the development of personal and moral judgements and could be based on prior experiences. This particular judgement creates clear justification for judgements and explanations, which may be useful as part of a scaffolded approach (Knight, 2023) to learning across the programme curricula.
- Critical judgement through investigation and involves challenges to and evaluation of the judgements and values through reflection of practice.

The first three categories of Tripp's (1993) judgement were deemed to be most suitable as a framework to shape this case study and also capture feedback from students who had experienced the CSL. Schon's (1991) reflection 'in action' and 'on action' was also considered as a model and used to capture feedback from students and Technicans.

Following feedback from healthcare students, there was a common theme around the need for signing off clinical competencies, especially post Covid-19 pandemic. Hence, a primary aim of the CSL was to create a sense of encouragement to attend with their mentor or Academic Personal Tutor (APT). This design approach was particularly welcomed by neurodiverse students and staff, who assisted in the design of the CSL environment. Wider aims of the CSL included:

- Creating a space for reflection on learning during practical sessions as a part of the core curricula.
- Reflection post-assessment (i.e. Objective Structured Clinical Examination)
- In-reflection (Schon, 1991) responses from students that support alternative forms of practical learning within the classroom environment.
- Promote the professional development of Technicians.

From visits to other campuses within our own University, Technicians provided dedicated space and expertise for students to practice core techniques and skills (creative skills, metalwork, ceramics, woodwork etc) post-delivery in a formal teaching environment. We looked at various models of working with potential applications to the clinical skills environments. Through the sharing of various practices across our own University, the visible integration of Technicians within the learning spaces of the creative programmes was apparent.

Given the need for frequent staff development, especially for those staff undertaking their Post Graduate Certificate in Higher Education / AdvanceHE Fellowship status, the new CSL space could also be useful for practice and upskilling. Creating opportunities to maintain currencies against evolving clinical skills techniques within practice and reflective practice and key elements for our academics and technicians. Korhonen and Torma (2014) highlight the need for constant reflection that in turn helps individuals and teams to develop for evolving situations and where needed construct alternative practices.

Initial barriers and limitations

The concept of professionalism is predominately created through rubrics such as those set out in professional and regulatory education and operating standards and the creation of a new model of learning through informal support requires careful consideration (Cleaver, Lintern and McLinden 2018). One of the key purposes of the CSL was to provide a dedicated space for students, Technicians, APTs and mentors from practice to have dedicated time to practice clinical techniques. The framing of the CSL was shaped around creating a welcoming and pastoral approach, which existed outside the

programme-level structure and delivery.

Finding a dedicated space suitable for the various equipment and provision was initially a challenge, given the constraints on dedicated timetabled space on campus. Ensuring we were providing suitable resources for all student groups, especially in terms of accommodating neurodiverse students was important and a key consideration in the design of the space.

The staffing model also required a review to ensure the Skills Lounge could be supported by a technician consistently throughout the working day and there was a flexible approach to accommodate skills mix and professional development for all Technicians. This was important and created a strong linkage to our support as an institute to the Technician Commitment programme.

Simulation and practice-based learning equipment can be expensive and/or require a static environment to operate. Consideration was given to ensure a flexible approach to the provision of learning equipment within the CSL, especially if there is a high demand for particular equipment. The management of logistics is therefore a key consideration when setting up a space such as the CSL and time and resources need to be put in place to ensure Technicians can model the demand and capacity requirements.

Ensuring the messaging around the purpose and accessibility of the CSL is important, especially in terms of creating a welcoming and inclusive environment. Having a clear lexicon around access to CSL, the philosophy of how this space could be useful for students to enhance and reinforce previous learning, gaining greater confidence and

further reflection is also important, requiring careful structuring. The structuring and planning dimensions are important and connect with Knight's (2023) consideration for professional judgement and in particular problem-solving and decision-making.

Benefits for students from this space compared to timetabled sessions

Through the provision of the CSL, students from across different healthcare subject disciplines, with varying levels of healthcare experience are being supported. In contrast, during a timetabled module session students are taught the practical skills in a two- or three-hour session as a group of up to thirty students. This particular style of teaching does not suit all students and in particular, those students who may potentially identify as being neurodiverse and/or have wider particular learning support needs.

Student experience journey:

- Following a timetabled skills session, students have time to reflect and often come to the CSL with a particular area or technique they want to improve or enhance.

- Students often benefit from working independently or in small groups and have the option of having Technician support available during their time in the CSL. Some students request support or advice from the technicians some peer assist.

- Within the CSL, students may organically connect with students from across other programmes, for example, midwifery and paramedic science students cannulating together and sharing experiences.

- The students can attend the CSL multiple times, before and after their placements to attune their skills in a relaxed environment where they are not being assessed. This approach also provides opportunities for students to ask their peers on different programmes whom they may encounter in the CSL about their placement experiences.

The design and creation of the CSL took several months and utilised existing space on campus, which was close to the main reception and offered a central location for learners. Significant consideration was given to the overall layout and design of the CSL, taking established practice from other recent learning environments across the campus and principles adopted from our science laboratories. Hackla and Ermolina (2019) highlight the duty of Higher Education providers to design inclusive learning environments and support individual reasonable adjustments (Department for Education, 2019).

Particular focus was given to the colour schemes used within the CSL to help support different student and staff groups, the range and volume of equipment held in this space, learning materials and space for single and group working. Colour vision deficiency was highlighted as a particular concern by some staff groups as part of the design phase for the CSL, as different backgrounds can create challenges in analysing and interpreting results (Hackla and Ermolina, 2019).

Figures one to four highlight the CSL and the interaction taking place between a Healthcare Technician and students, with particular attention being placed on the types of learning spaces that were being created.

Figure one here   Figure two here

Figures one and two – Healthcare students practising intravenous cannulation techniques in the Clinical Skills Lounge. Figures created by authors

Figure three here   Figure four here

Figure three and four – Focused areas of the clinical skills lounge that also create more dedicated space for groups of students to practice their clinical techniques. Figures created by authors

Results, Initial feedback and considerations for practice:

The clinical skills lounge has now been in use since May 2023 and during this time, students from several different healthcare subject disciplines have used the space. Technicians have been crucial in the provision and ongoing support for students and also in creating space for their professional development of working within a third-space environment. The CSL has also provided greater insights for programme teams in terms of how learning and assessment settings should be more flexible and accommodate learners with support requirements. This was a particular theme identified in the first few months of the provision of the CSL, with a higher-than-average attendance of students who identified as requiring particular support with their learning.

Key feedback captured from students include:

- Creating supportive environments that can help restore confidence, especially when there have been experiences of particular challenges on placement. This is important as a significant amount of the programme requires a '*scaffolding*' approach, that builds on prior knowledge and experiences. This links with Tripp's (1993) reflective judgement Knight's (2023) approach to scaffolded learning.

- The CSL provides a chance to practice in a clinical environment with peers, not just from the perspective of a student's own programme, but from across other programmes and promoting inter-professional learning.

- The technician was very helpful, the equipment in the CSL was ready to use and there was plenty of kit. The CSL is a calm and safe environment to practise skills in the students own time.

- Technicians were very helpful and knowledgeable and were happy to talk through the theory behind the skill and teach us the technique.

- The Technicians are extremely helpful and provided great tips that would come in useful for our forthcoming placement. The CSL is seen by many students as being a supportive and safe place to practice clinical techniques prior to and post placements.

- Greater opportunity to practice skills and develop greater confidence whilst helping each other in a non-pressured environment.

- The Technicians were extremely helpful, providing guidance on many different skills and we had access to equipment, helping us practice everything we needed. There was different equipment available to practice many clinical skills. This particular space doesn't exist anywhere else on the campus.

Key advantages of the CSL for healthcare students from the viewpoint of Technicians:

- Students can come to the CSL on their own time, often multiple times to practice. Some students rely on repetition to ensure they feel confident in undertaking their practical skills.

- Students can work independently and are not judging their performance based on those around them as often happens in larger group teaching In modules.

- Students can attend with APTs or clinical mentors to show competence in a skill if they've had limited/no exposure in their placement. This approach is particularly important when establishing a placement learning plan for students where additional support may be required.

- Students being able to practice skills with different cohorts to share knowledge, skills and experience. For example, I've witnessed paramedics assisting a year two Adult nursing student with cannulation techniques.

- Students who prefer to learn and practice in a quiet relaxed environment benefit from the CSL set-up. We've had students with ear

defenders/headphones which allows them the space to practice and ask for guidance while they're not sensorily stimulated which can happen in larger group teaching.

- Increased opportunity for Peer-to-Peer support/teaching and to design new approaches to curricula design and assessment techniques.

Key feedback quotes from module leaders involved in the coordination of Objective

Structured Clinical Examinations:

- *Specific feedback from staff involved in the second-year Adult Nursing programme* - We haven't yet received our statistics for the latest OSCEs, but we're already having discussions about the marking scheme because students are doing so well! The marks are excellent, but we're not convinced that students' knowledge is that much better than previously. It may be that practising in the skills lounge helps them perform the process better or it may be that we're teaching them how to pass the OSCE. Either way, if they can do an effective assessment, it can only benefit patients, and maybe we need to work harder on their supporting knowledge. Regardless of the figures, we know students have appreciated being able to practice before the OSCEs – it's something they've asked for every year since we started doing them, and it's great to be able to remind them it's there.

- *Specific feedback from staff involved in the second-year Paramedic Science programme* – Hundred per cent we saw an improvement! The students we had through the last set of OSCEs were more confident in their abilities to undertake the skills, and their underpinning knowledge behind everything was so much more robust, even under further questioning from us. The skills lounge played a significant role in this and helped build their confidence in these skills before their OSCEs!

- A member of staff from the Nursing Apprenticeship programme just came into the skills lounge and wanted to pass on thanks for how we supported a student with her OSCE. The student had told the staff member how wonderful we all are and how beneficial the skills lounge was for her as it was her final attempt at this OSCE. It's great to see how the skills lounge is making a difference to students who may be struggling with their clinical skills exams.

Reflections from Technicians involved in the development and delivery of the CSL:

Our initial focus within the clinical skills team running the skills lounge was to provide an environment separate from the current lecture & skills rooms where students could better understand their learning styles & maximise their productivity, ideally teaching themselves how they learn best. This mode of learning aligns with Tripp's (1993) focus on the relationship between routine practice and judgement and the development of confidence and pushing this further in terms of students providing peer support.

Through dedicated clinical Technician support, students are encouraged to self-direct their learning & practice time by utilising digital media, visual aids, audio recording, written or pictorial notes, cue cards & verbal checklists with an opportunity to teach their peers & colleagues. Having an additional space outside of traditional learning areas where this level of individual learning can be cultivated has had a notable effect on both knowledge & understanding, communication & problem-solving within skills-specific outcomes. Dunlosky and Metcalfe (2009) highlight the importance of identifying appropriate times when learning is emerging and encouraging these moments within our students is key to their success.

All clinical technicians running the day-to-day function of the skills lounge are also required to teach clinical skills within standard practical sessions, ideally positioned to see this growth in confidence & ability across all student cohorts and contribute to the continuous improvement cycle across modules and programmes. The connection points with APTs, clinical mentors, and colleagues in the learning support services are also enhanced and a strengthened student-focused model begins to emerge.

Students are encouraged to create an appropriate methodology both in their own understanding of clinical skills, processes, judgement skills and interpreting clinical algorithms, but also with a focus on being able to explain & teach the skill to another person, ideally in a simple & succinct way as if teaching '*year one, day one*' versions of themselves or a member of the public.

The ways of working observed in the CSL by Technicians aligns with Hargreaves and Fullan's (2012) considerations for the focus on developing judgement skills in addition to the act of performing clinical techniques. Recognition of the importance of educating others within the role of a healthcare professional is a vital component of modern practice. Educating patients, the public & colleagues about specific areas of health & clinical practice is a considerable portion of daily duties for all healthcare professionals. Ensuring students begin their learning objectives with the mindset of being able to teach others, albeit fellow students or patients, is something the clinical skills team feel dedicated to improving & progressing.

To promote the awareness and impact of CSL third space learning, we have placed skills-specific teaching prompt cards on main pinboards around the campus corridors. These cards mirror the ones found within the CSL and offer visual step-by-step guides for completing relevant practical skills, general healthcare knowledge, anatomy, physiology, and pathology. In addition to the prompt cards, themed boards have been created that aim to raise awareness and encourage discussion among all community groups across the campus. To date, the themes include death & dying, menstruation, menopause, and female health, mental health, safety in society, skin & hair diversity, and neurodiversity.

'*The prompt cards provide opportunities for learning beyond the skills rooms and lecture halls. They are designed to be accessible to all students and staff, and offer insights into subjects outside of their expertise, such as mental health, learning disabilities, midwifery, and end-of-life care.*'

The opportunity to do one-to-one smaller group teaching, assisting and observing students with real '*breakthrough*' moments in terms of developing critical judgement skills is important. There are also greater inter-disciplinary working opportunities, with more programmes being supported through the CSL and the role that Technicians play, in terms of connecting students, shaping a pastoral dimension to the students' overall experience is valuable.

The provision of the Clinical Skills Lounge has also helped to Identify where healthcare students have undertaken the wrong technique for important clinical skills pre-assessment and/or pre-placement. This important aspect of the CSL needs further exploration and will be reviewed in a follow-up study. Timely continuation and completion of students' studies is an important metric as measured by the OfS and we also need to ensure there is sufficient time and resources put in place to support those students who may require more time.

Developing teaching methods for students who may be struggling to pick up techniques or lack understanding is also a consideration for further review and links with the professional development opportunities for Technicians within the organisation. Key

areas that begin to surface relate to potential mentorship and leadership opportunities

'*The times I have supported the students in the skills lounge have allowed me to identify common learning themes, both negative and positive, that the students are experiencing. This can be fed back to the academic teams to influence teaching trends in practical sessions.*'

The level of Interpersonal skills has improved between multi-disciplinary groups of students through the CSL, which in turn cultivates positive working partnerships across the various student societies. These connections also expand into supporting students to maintain competency whilst on placement and to problem solve and underpin experiences from placement. This model of practice supports scaffolding learning and promotes the professional growth of students. The retention and timely progression of healthcare students through their programmes is important, not least from a student wellbeing perspective, but also as part of the development of a secure future healthcare workforce pipeline. The Long Terms Workforce Plan (NHS England, 2023) identifies the importance of sustainable workforce pipelines across all professions and this goes beyond practitioner level. There is opportunity to promote the model of learning within the CSL through our Enhanced and Advanced Practice programmes.

Recently, the CSL has also become a space where students have been involved in the promotion of interview tips for prospective healthcare students as part of their application process for programmes. The informal and welcoming setting of the CSL and involving students who also act as advocates for their subject areas promotes confidence and greater inclusion. The use of Vox Pops which includes students

providing their experiences and top tips for prospective students, filmed in the CSL promotes a welcoming, informal learning space (University of the West of England, 2024)

Impact of developing a Technician focused clinical skills environment:

UWE Bristol is a founding member of the Technician Commitment and over the last eighteen months developed a new family of professional roles which seeks to enhance this important group across the wider University. Pushing potential opportunities for Technicians regarding recruitment, retention, development and career advancement has become a key focus of the University's Transformation work. This level of positive disruption is challenging traditional thinking within the organisation and creating opportunities to reshape curricula, assessment design and delivery and use different learning environments.

Students taking a more active role in the development and creation of learning and assessment environments is an important consideration for current education provision (Cleaver et al, 2018), along with the continued promotion and advocacy of Technicians across different practice-orientated subject areas. We argue that Technicians continue to blur the perceived binary division between academics and professional service roles and truly integrated models of curricula design require authentic team approaches and equal participation of members, as highlighted by Grant (2021).

Future developments and considerations:

Given the positive initial feedback from healthcare students and staff, there is an opportunity to further develop this model of reflective learning. This will undoubtedly help our student cohorts and a particular focus on supporting those students who may identify as being neurodiverse and require adapted environments to process and learn new knowledge and skills. Further work on the impact of the CSL on reducing the repeat rates for OSCEs also needs to be conducted, along with a collaboration with clinical partners to look at opportunities to mirror the CSL model in practice.

There is also a continued commitment to ensuring our Technicans have access to professional development and access to the National Technician Development Centre and wider professional development opportunities. The provision of access to our internal postgraduate certificate in Learning and Teaching and AdvanceHE Fellowship status is also a feature of our professional development commitment for Technicians.

Declaration of Interests statement:

The authors confirm no conflict of interest in the preparation and writing of this article.

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