Design Guide
Safety @ Work

Integrating syllabus and VR learning experiences for mastery in positive behaviour support

VICTORIA State Government | Education and Training

A collaboration between Scope (Aust) Ltd and Swinburne University of Technology (University and TAFE). Supported by the Victorian State Govt.

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1 Part One

Part One provides an Executive Summary of the design insights arising from the Safety @ Work project - a multi-disciplinary applied research initiative that will mainstream immersive technologies, i.e. virtual reality (VR), in training students and disability support workers in positive behaviour support (PBS) for people with disabilities.

This section also provides some background and context for the project which ran from 2019-2022.

This **Design Guide** may be read alongside the **Evaluation Report** which outlines our research findings as to end-user (i.e. TAFE students and Scope Disability Support Workers) experience with VR as well as the effectiveness of VR as a learning tool.

1.1 Executive Summary

The **Safety @ Work** project involved the design and development of a comprehensive and contemporary syllabus for the teaching of positive behaviour support with fully integrated virtual reality learning and coaching experiences. The workforce context was that of the disability sector with training arising through TAFE and / or organisational structures.

Key design considerations, elaborated upon in this document, included:

- The use of "Learner Persona(s)" to translate adult learning principles into practical design considerations for the relevant student body / workforce.
- Understanding fully the learner environment and circumstances.
- An emphasis on confidence-building in all learner interactions with the training process
- Articulation of learning outcomes ["*what good (great) looks like*"] and the clear and consistent alignment of those learning outcomes with core content for knowledge / skill acquisition (see "Learning Principles")
- Learning being viewed as an investment and an investment necessarily made within a broader set of organisational conditions for success, i.e.
  - Positioning specific learning along an appropriate Learner Journey
  - Practice (reinforcement) through appropriate coaching and on-the-job supports
  - Measurement of benefits / outcomes vs expectation (return on investment)

1.2 Introduction

Occupational violence is a significant risk within the disability sector. Frontline support workers who are supporting people with a disability in a residential or community environment are at particular risk where some individuals may exhibit challenging behaviours, in extreme cases involving violence.

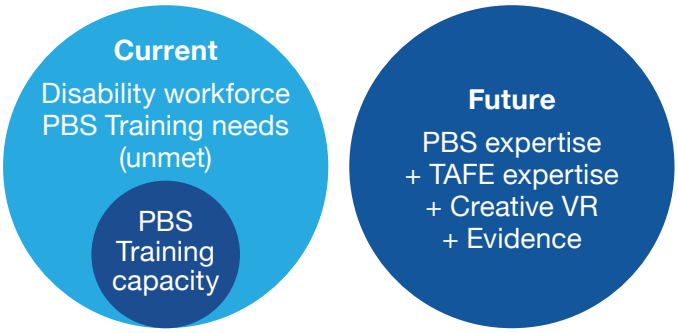
Positive Behaviour Support (PBS) is a framework for providing long-term support to people who have, or may be at risk of developing, behaviours of concern. PBS is a proactive approach which uses evidence-based approaches to assist people with learning disability, and/or autism, including those with mental illness.

The overarching purpose of this project was twofold:

i To reduce the risk of occupational violence for disability support workers at Scope and for workers more broadly in the disability and other human service sectors, and

ii To reduce the acute stress and discomfort, including risks of self-harm, for the people we support who may exhibit behaviours of concern

The project envisaged a step-change reduction in these risks by increasing the efficiency and effectiveness of Scope and TAFE training capacity in PBS.



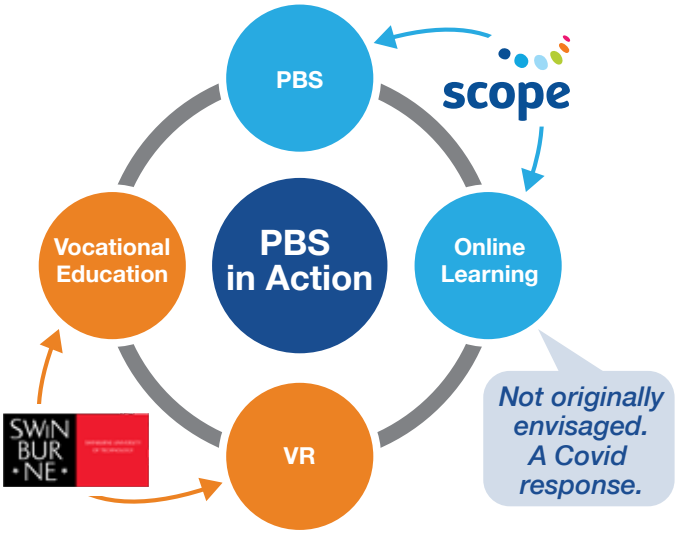
1.3 Using this Design Guide

This guide documents the experience of the Safety @ Work project team in the design, development and testing of an integrated workforce training syllabus and VR learning experiences.

The contents are provided as a point of reference for other organisations who may be considering the use of VR tools or the development of similarly integrated syllabus content and VR based learning experiences / “games”. The guide should not be relied upon as any form of definitive or formal methodology.

1.4 Expertise

The project combined four key sources of expertise for collaboration, as depicted below:



Safety @ Work has produced PBS in Action.

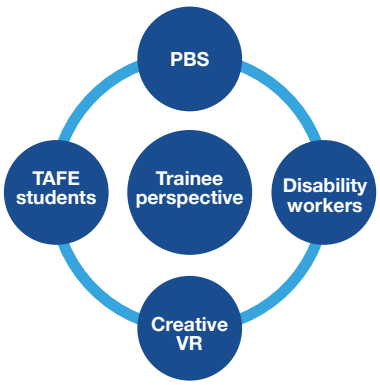
PBS in Action is a comprehensive, contemporary and learner-centric PBS syllabus.

PBS in Action is delivered online and integrates with VR coaching resources x5.

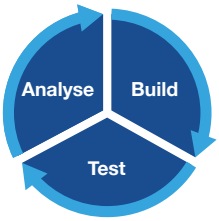
1.5 Our Design Intentions

As originally envisaged for Year 1 of 2

Codesign
(2 months)

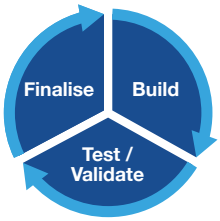


Develop & Test
(4 months)



Sprints x4 to test / optimise
- Trainee / trainer experience
- Animation, voice, avatar attributes

Build & Validate
(6 months)



Build VR for remaining 4/5 PBS motivations
Test / validate with users as required
Finalise training content / delivery model

Outputs

1. Design specification that integrates:*
   - PBS Learning objectives
   - Trainee (user) experience
   - Candidate VR attributes
2. Storyboard for each of the 5 PBS Motivations*

1. Prototype VR resource
   - Escape motivation
2. Updated design specification

1. Integrated PBS / VR training model
2. PBS VR resources (5 motivations)
2. VR for Adult Learning - Design Guide
3. Research paper for Design phase
4. TAFE / Scope VR opportunity map

*Note: Positive Behaviour Support research identifies 5 motivations for challenging behaviours, each of which progress through phases of escalation (environmental triggers, antecedent behaviours and finally, if not adequately addressed, the challenging behaviour itself occurs). To fully integrate VR into the training design and delivery, VR experiences will be developed during Phase 1, above. One of the five motivations, Escape, was the basis for our seed funding VR exploration.

As originally envisaged for Year 2 of 2
Phase 2: Prototype & Evaluate

Preparation
(during Phase 1, first year)

Ethical approval
(3 months)

Evaluate
(6 months)

Ethical approval → Recruit workers / students → Schedule training

Control Group 1
PBS Training - No VR
→ Confidence, Knowledge, Practice?

Control Group 2
PBS Training - VR Mobile
→ Confidence, Knowledge, Practice?

Control Group 3
PBS Training - VR Central (classroom)
→ Confidence, Knowledge, Practice?

Outputs

1. Updated Evaluation Plan

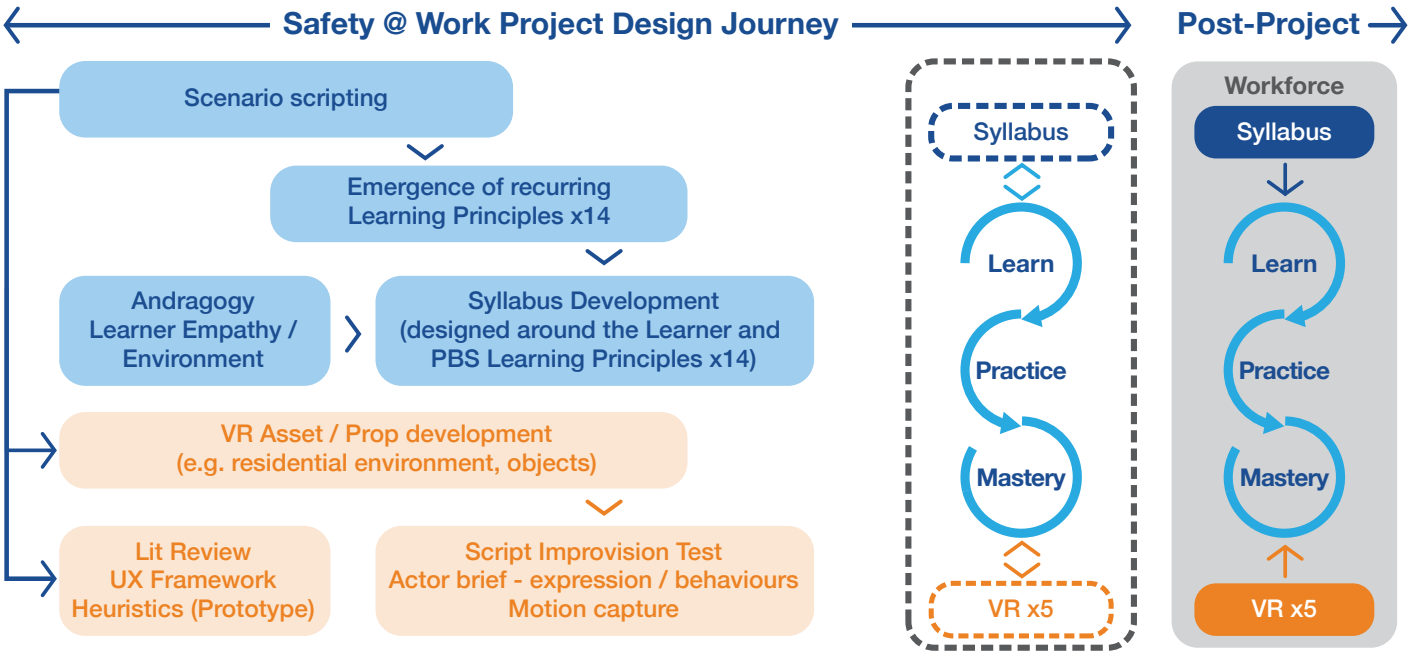
1. Pre and Post evaluations
2. Updated Prototype for further learnings
3. Updated Design Process Guide

1. Longitudinal evaluation (+3 and +6 months)
2. Final Research paper
3. TAFE Training & VR opportunity update with recommendations

1.6 Our project journey and actual design experience

Our project journey expanded from 2 to 3 years due to the impacts of Covid-19. Our design and development progression was less sequential than originally expected with discrete and complimentary streams of work running in parallel, with points of integration.

Safety @ Work (PBS VR) – Project Journey by workstream				Outputs
Learning				
Learner validation / research (DSWs / therapists)	PBS in Action Syllabus, Learner empathy, define outcomes, creation of key Learning Points. Scenario scripting x5, Validation work	Switch to online delivery, Syllabus resource development (video, activity books, teaching plan) Awareness / Recruitment	Round 1 DSW x27 Round 2 DSW x40 Round 3 DSW x35 VR Workshops DSW x45	Syllabus Train the Tutor Integration (70:20:10)
Creative & Technical (VR)				
Proof of Concept "Julie" PBS VR Prototype	VR Environment / asset development Motion Capture Testing	Sophie Social Sophie Escape	Kirk Sensory Patrick Pain Patrick Tangible	VR x5 Tutorial x1 Headsets (mobile / wireless)
Research				
Initial Literature Review Sector scan	Prototype Evaluation Literature Review - User Experience - VR in workforce learning Headset evaluation	Sophie Social - UX Evaluation	VR Research	Research UX Framework Lit Reviews Studies 1-4
Oct '18-Mar'19	Oct '19-Sept'20	Oct '20-Jan'21	Feb-Sept'21	Oct'21-Jun'22
Proposal / Prep	Lockdown era		Lockdown era	



2 Part Two

Part Two outlines the specific design considerations for the development and integration of syllabus and VR experiences.

2.1 Adult Learning – syllabus design and scenario scripting

Within Scope, the principles of adult learning and generally accepted principles of training design have always been understood. However consciously designing them into our PBS training content, such that technical content is consistently imparted to learners and integrated with all aspects of these general principles, was relatively weak in practice.

Safety @ Work created an exceptional opportunity for our PBS specialists (who primarily work in a clinical and technical advisory capacity) to co-design a syllabus and all related resources (including VR) alongside TAFE educational experts. This co-design gave form to the "art and science" of andragogy while creating the *PBS In Action / VR* program. Two major guides were imposed at the outset:

- PBS In Action / VR would be underpinned by Adult Learning Principles[1], as originated by Malcolm Knowles (see summary table across), and
- PBS In Action / VR would contain competency-based learning objectives for the ease of mapping and accreditation – if sought at a later date.

Adult Learning Principles adopted:

The need to know. Adults want their learning experiences to:

- meet their needs
- be relevant
- help them achieve their goals.

Learner's self-concept. Adult learners:

- are self-motivated and self-directed
- are independent
- like to find their own way
- can make their own decisions
- want to manage their own learning.

Role of the learner's experience. Adult learners:

- have diverse experience and knowledge
- may have ingrained ideas about things
- apply their life experience and knowledge to new learning
- use their problem-solving, reflecting and reasoning skills.

Readiness to learn. Adult learners:

- are goal focused
- want timely learning
- seek meaningful learning experiences
- need clear learning goals.

Orientation to learning. Adult learners:

- are practical – their learning should apply to their lives, job, etc.
- want to be involved in planning their learning
- focus on the aspects that are most useful to them.

Motivation. The best motivators are internal; for example:

- increased job satisfaction
- heightened self-esteem
- better quality of life
- personal growth and development

1 1 Adult Learning Australia; https://ala.asn.au/adult-learning/the-principles-of-adult-learning

The sequential approach taken to develop the ***PBS In Action*** syllabus was:

Step 1 Deconstruct the current published references and the current materials in use.

Step 2 Use a Systems Thinking approach to sort the content, the topics are categorised/collated/ combined or cut to produce working titles.

Step 3 Design a worksheet format which can be used to discuss each title.

Step 4 Finalise the LEARNING OBJECTIVES / TITLES / CONTENT and PREFERRED ORDER.

Design Inputs >	Key Syllabus Design Elements >	Outputs
Pre-existing training resources and best practice PBS research / guidelines The known 5 motivations for challenging behaviours **Expertise Inputs >** PBS Clinical and Coaching practitioners x4 Vocational Education expertise including extensive TAFE Disability Cert III and IV tutoring x1 Workforce Learning & Engagement x1 *Notably 3/6 experts involved in the syllabus design had also worked as Disability Support Workers, bringing an especially high degree of understanding to the design of content, and learning activities.*	The Learner (see section 2.2 below) Learning Outcomes (2.3) Learning Principles (2.4) Learning Environment (2.5) - Accessibility - Flexibility / Pace - UX, including safety Learning Platform (Technology) (2.6) Measurement (2.7) Integration (2.8) - Knowledge - Skills - Practice - Confidence - Competence (Mastery)	*PBS in Action* – a comprehensive, contemporary, and fully integrated Positive Behaviour Support learning program for disability support workers / TAFE students / interested others. • Syllabus • Resources for online delivery • VR Experiences x 5 • Tutor guidance

2.2 The Learner

We realised that the "Learner" had not been adequately understood or considered in the pre-existing training materials. These materials were typically technical and detailed in nature, reflecting the interests and expertise of the tutor rather than the interests and circumstance of the learner. The project team addressed this by developing three learner personas using an *Empathy Map*[2] tool in a workshop setting (Figure 1).

This activity - analogous to the marketing / product development practice of customer segmentation - was a highly valuable exercise. Recurring references were made to the personas in subsequent phases of the project. Organisationally, the empathy mapping exercise also aligned strongly with Scope's values and purpose to celebrate people and create meaningful change.

2 Source for Empathy Map Canvas - https://gamestorming.com/empathy-map/

Persona example

PERSONA 1: Amari

In brief: Amari, 38. No study since high school, 1.5 years' experience working in disability support. Very little PBS experience and is excited to be transferring to a role where PBS is needed.

Amari has been working with people with disability for about a year and half. Firstly, as a casual staff person in a large organisation delivering a variety of programs (leisure and independent living programs for people in groups and individually) and most recently as a contract worker in a residential setting. Amari has been supporting five women with disability, who are in their 40's, to live as independently as possible.

Amari has very little experience using a positive behaviour support approach, but she is keen to learn to expand her skills and open up her work opportunities. Amari is excited about this new opportunity to work with people who have complex needs.

English is Amari's second language, and she has been hesitant to enrol in Cert IV in Disability because of this. She has not studied since leaving school but now that all her children are in high school she is open to the idea of study.

Figure 1 Empathy map for Persona 1, Amari.

This upfront articulation of key learner personas and their identified attitudinal and behavioural responses in classroom and coaching settings became a constant reference during the onward development of the syllabus. Rather than influencing the content of the training, the personas were critical to the design of activities being created to reach learners of differing dispositions.

2.3 Learner Readiness

A key design factor that arose from the learner personas was our identification of learner readiness as an important design and deployment consideration. This developed into the broader concept of a Learner Journey; a map that outlined how critical training interventions should be delivered on a learner's continuous professional experience and development.

Our focus on the Learner and their perspective also brought us to an articulation of "conditions for success" (both for the individual learner and for the employer organisation), i.e.

Conditions for Success	
Individual Learner	**Organisation**
Pre-requisite knowledge / skills Motivation An experience of journey (prep, learning, coaching, measurement, refresh) Control	Targeted (the right people at the right time) training investments A defined and organisationally consistent - learner journey - 70:20:10 regime (see page 20) - Measurements - Role clarity / accountability Training being viewed as an investment Investment returns (benefits) being understood, reviewed and acted upon.

2.4 Learning Outcomes

We realised that “Learning Outcomes” were not well defined in our pre-existing training resources. Consistent with the findings of our literature review, like most organisations, Scope doesn’t measure the value of our training investments beyond the immediate ‘reaction’ level, i.e. what the learners thought about an instance of training.

As such, definition of learning outcomes throughout the syllabus and across the VR scenarios was prioritised. Familiar structures were used, referencing the anticipated acquisition of **Knowledge**, then **Skills** (capability) and ultimately **Practice** change that is reinforced and supported, becoming embedded and leading to sustained better outcomes for both the workforce and customers (people with disability).

Our exploration of Learner Empathy also added a more explicit focus on learner **confidence** as an important learner attribute for the development of Knowledge, Skills and sustained good Practice. The articulation of learning outcomes essentially equated with our view of “what good looks like”. See Appendix I for an overview of PBS in Action Learning Outcomes (Kirkpatrick Levels 1 and 2).

- A critical point here is that the articulation alone of the anticipated Knowledge, Skills and Practice outcomes is not sufficient for success unless it is linked to formal and longitudinal measurement of such outcomes. The **Kirkpatrick** Evaluation Framework[3]:

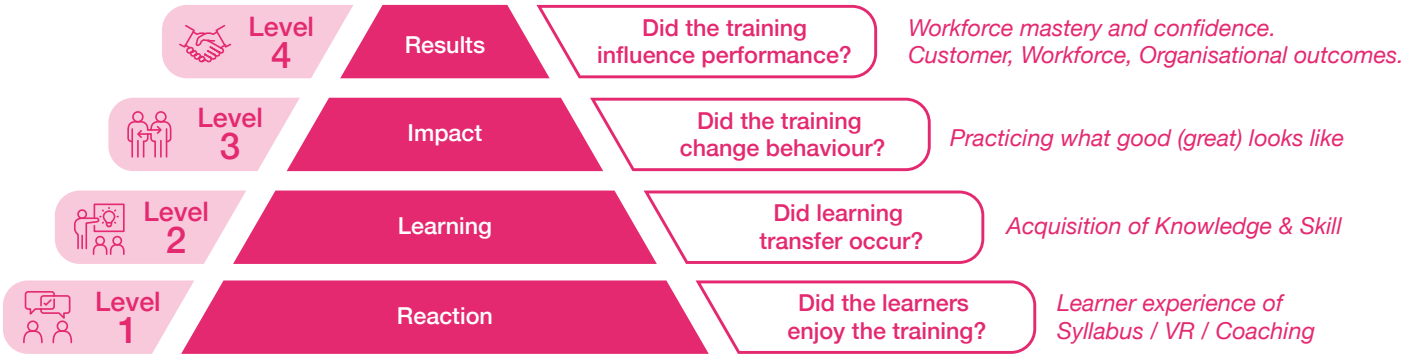


Figure 3 Kirkpatrick Evaluation Framework

3 3 Kirkpatrick, Donald L.(1994). Evaluating Training Programs: the Four Levels. San Francisco: Emeryville, CA: Berrett- Koehler; Publishers Group West [distributor].

2.5 Learning Principles

The development of PBS Learning Principles (LPs) x 14 became a pivotal design feature across the syllabus and VR experiences.

These principles became the bridge between syllabus content (i.e. PBS theory, text and discussion), the decision-making built into our VR scenarios and our defined learning outcomes (Appendix I).

We note that even training courses with well-presented content and well-articulated learning outcomes (the acquisition of knowledge, skills, practice, and confidence) may struggle to demonstrate the cause and effect between content and outcomes. The recurring identification of the various Learning Principles in play at any point in the syllabus and VR experiences meant that both tutors and learners could immediately relate (and reinforce) syllabus content with VR experiences and on-the-job practice outcomes (what good looks like).

We note anecdotal feedback from DSW learners that validates how helpful the LPs are for post-training recall as well as their frequent use in evaluating on-the-job experiences.

Each decision point that was scripted in the VR was mapped to one or more related LPs. This permits post-VR refection and discussion that instantly links learner decision making (in VR) with syllabus content and outcomes being sought. Coaching and reinforcement is therefore consistently grounded in the 14 LPs, providing learners with a consistent frame of reference for their learning experiences, as they occur over time and in different guises.

In acknowledging the centrality of the LPs, each VR scenario was designed to record each learners sequence of decisions, allowing the option of full reflection and precise coaching support. At scale, these records may also identify recurring biases in learner cohort decision making – allowing for an informed teaching and coaching response.

See Appendix II for an elaboration on each individual LP – depicted in summary form above.

2.6 Learning Environment

Extending from consideration of Learner Personas (empathy), we also assessed the likely learner environments, defined in terms of their own physical location, proximity (physical or virtual) to co-learners and / or tutors as well as the tools and resources being used. We noted in our literature review, the familiar references to the differing "preferred" ways in which adults learn, i.e. visual, auditory, reading and writing, and kinaesthetic, including the suggestion that although individuals might suggest their own preference as to style of learning, there is no actual evidence that such preferences actually translate as greater learning on a given topic/skill[4]. As such we focused our syllabus and resource design on the use of multiple "styles" although the greatest priority was given over to reinforcement of the identified 14 Learning Principles, through lesson structures, activities and most importantly, in the decision-making in each VR scenario.

SAFETY AT WORK

Factors Relevant to the Learner Environment

The following is a table of learner environment factors that was prepared early in the project, noting that any combination of the factors listed was thought conceivable.

Delivery mode	• Face to face • Fully facilitated online • Self-guided online with facilitated VR experiences
Physical setting	• A vocational classroom • One's own home • a formal training space (professional workshop) • in the workplace
Equipment / materials	• Desktop computer or tablet or laptop to access online learning space • Printed course (workbook/teacher guide/ resources) • Downloadable course (workbook/ teacher guide/ resources) • Programmed Oculus headset
People	• Students enrolled in the same course • Work colleagues in large or small teams • Team leader / House Supervisor • A local professional who is experienced in PBS
Internet	• Yes • No • Yes, but slow due to limited capacity

4 International report: Neuromyths and evidence-based practices in higher education. Online Learning Consortium: Sept2019

The value of articulating these factors was noted as syllabus content and supports were designed. Notably there were unanticipated environments such as learners joining from their cars (between shifts or during out-of-normal-hours activities) or joining from back yards - locations where Wi-Fi was best and interruptions least.

2.7 The Learning Platform

The Classroom – real (in-person) or virtual (online)

Two external factors significantly changed our original expectations for delivery of training, both for the better in respect of project outcomes.

Original expectation	Change Factor	Actual Experience
Syllabus Delivered in a conventional face to face classroom setting	**Covid19 pandemic**	**Syllabus** Online delivery became the only practical option.
VR High Quality – in a classroom setting using tethered headsets[5]/ 'super laptops' Mobile – using smartphone-based VR (cardboard eye frames) for remote learners to practice PBS.	**Better VR headsets** The advent of affordable wireless (and thus mobile) Oculus Quest headsets made the original mixture of low/ high quality VR redundant.	**VR** All experiences delivered in high quality on the Oculus Quest wireless headset. Available for use in classroom or remote settings.

5 A tethered VR headset is a system in which long cables connect the headset with a computer with enough computing power to run the 3D graphics. By contrast, wireless or untethered headsets contain all the computing hardware within the head-worn goggles, removing the need for an additional computer.

Platform Readiness

Our early consideration of learner personas influenced our design of preparatory supports for learners. We developed pre-learning surveys, self-assessment around existing PBS proficiency, and - crucially - fears or familiarity with technology. This included online learning, general computer use,

and prior experience of VR. The findings confirmed a need for significant learner readiness work to ensure that learners could self-direct their online learning and that technology itself would be enabling for learners rather than a point of frustration. These frustrations were likely to greatly diminish learning motivation and a learner's openness to use VR - which was a completely new experience for most learners.

This work reflected our overall "conditions for success", being the need to have ensured learner readiness to (a) learn and (b) have a seamless experience of the technology being used to enable that learning. In our case the technology was a combination of self-directed online learning (using Scope's learning management system, Go1), live tutorials via Zoom, and VR headsets for local experiential learning.

Given the remote nature of learning, learner wellbeing assumed a greater importance in our design of activity and supports. We sought to preclude undue frustrations (risking self-confidence or reducing motivation to learn using tech tools) as well as injury (if VR were not used in a suitably delineated and clear space). Additionally, there was a possibility of upsetting learners through the experience - if the interactions with a character in VR was found to be confronting.

User testing of technologies (online tools, VR headset and controllers) was therefore conducted in advance of learning activities in tandem with real-time debriefings (post-VR learning experiences).

Overall, we have found the online delivery of our syllabus to be highly effective and highly efficient (in terms of the requirement for expert tutor time). In contrast, we found that instructing unfamiliar learners in the use of VR via Zoom to be problematic. Demonstration and troubleshooting is difficult, particularly so if attempting to instruct a number of learners at one time. We have found that in-person orientation to the use of VR with small groups of learners at a time, circa 2-4, to work best and is preferred.

That said, as greater numbers of learners graduate through the program, we will continue to test our options. Personas will continue to be evolved and there may be opportunity to guide some learner segments remotely, e.g. those who may have used VR before (gaming etc), those who identify as tech-savvy etc.

2.8 Measurement

A core element in the project has been the longitudinal measurement of learning outcomes. The well-established (if seldom fully used) Kirkpatrick Framework (see Figure 3) has been our reference in this regard.

At the conclusion of the project, we are more confident than ever about the critical role measurement plays at all levels of the Kirkpatrick framework. The commonly referenced wisdom that "what gets measured gets done" is not new; however, in most organisations, the dearth of such measures (per our literature review) is surprising.

Unfortunately, the delays and restrictions we experienced due to the pandemic has precluded measurement, as yet, of medium and longer-term learning outcomes. These measures are however being introduced and will be a source of considerable interest as increasing volumes of learners graduate from the PBS in Action program and we progressively use the full suite of VR experiences.

The following outlines the measures utilised during the project, using Kirkpatrick's 4 levels.

Reaction (Level 1) UX Learning reaction Simulation sickness Technology acceptance	**Learning (Level 2)** Learning Efficacy Scale (relevance, preparedness, confidence)
Behaviours (Level 3) Simulation performance Self-monitoring assessment	**Results (Level 4)** Job safety incidents (STAR) Aberrant Behaviour Checklist Community participation & leisure checklist

In an organisational context, a broader set of related workforce and customer measures are expected to evolve over time.

2.9 Integration

Based on our experience and research findings thus far, it is our view that VR certainly assists knowledge retention and skill development in-turn. The VR provides the experiential aspect of learning and a tangible reinforcement of our key PBS Learning Principles. We believe this positions us well, through onward periodic coaching (with VR) to embed the skills developed as enduring good practices. This, in turn, is leading to the realisation of longer-term and sustained organisational benefits; a safer workforce and better quality of life for people with complex disability support needs.

The importance of comprehensive measures at each level of the Kirkpatrick framework has been referenced above. Such measures do, however, need to be integrated with the broader organisational conditions for success.

PBS in Action - a workforce capability product.
Organisational "conditions for success"

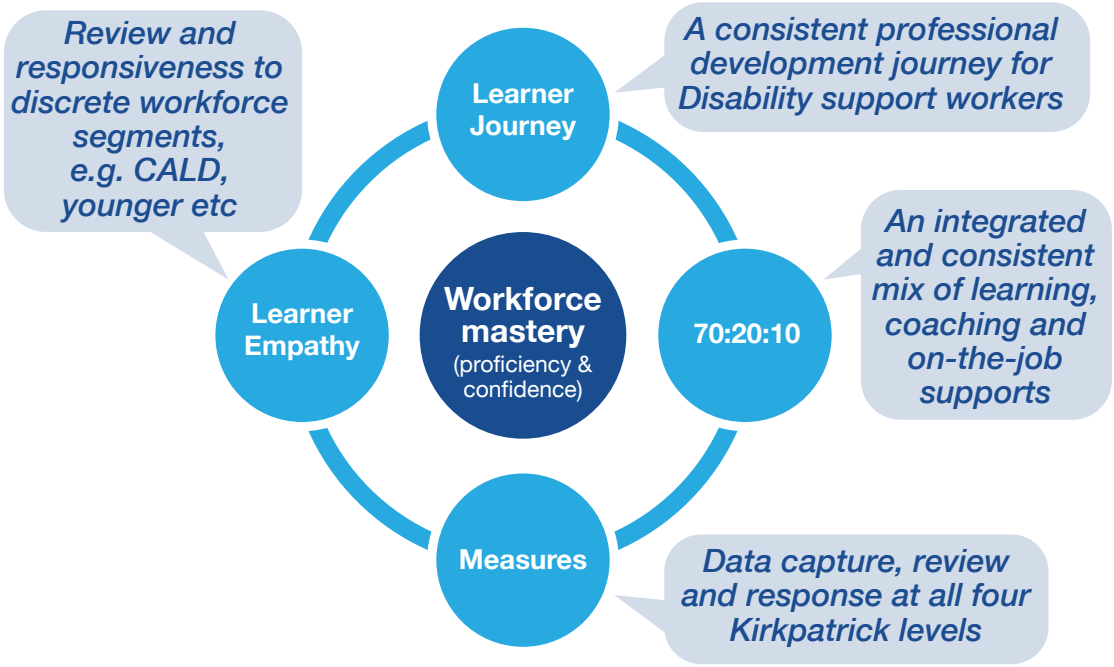


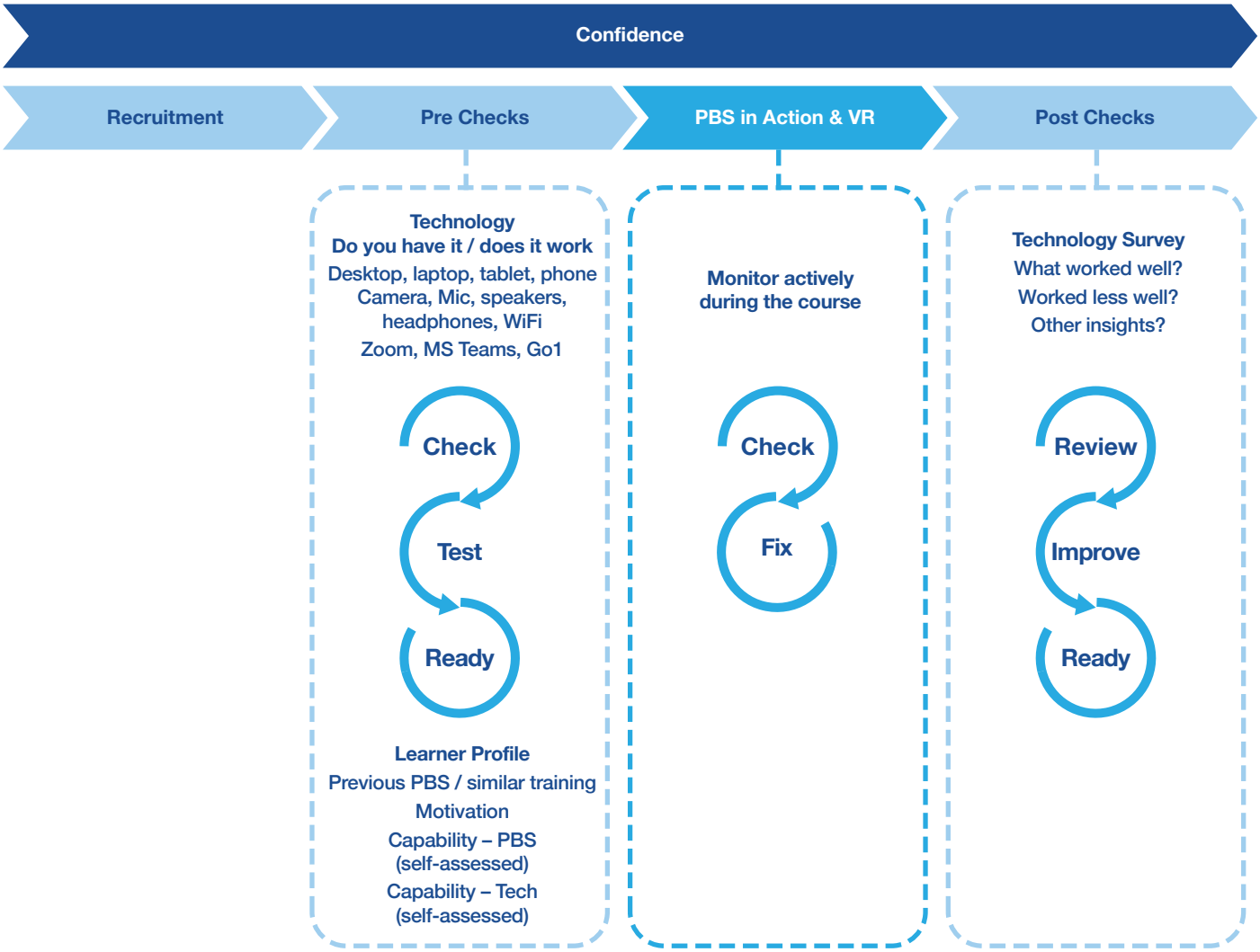
Figure 4 Organisational "conditions for success"

This emphasis on structured integration reflects the high risk that training investments – even with best-of-breed syllabus, tutors, and resources, such as VR – fail to deliver their potential returns, for lack of sufficient onward attention.

2.10 Technology

This section of the Guide focusses on the learner exposure to technology across their PBS in Action / VR experience. More technical considerations in the design and development of VR resources are described in the Final Evaluation Report.

Given the decision to move to an online delivery platform, technology assumed a much broader role in design considerations and involved a greater variety of technologies. This required the design of an end-to-end “process” for learner engagement, primarily to ensure that the technology involved, fulfilled its role as an enabler of learning.



Technology Used	Pros / comments	Cons / comments
Online Environment Local devices (either workplace or personal devices), i.e. desktops. Laptops, tablets, phones	Very flexible for users with multiple options depending on their circumstances. Works well when learners are regular users of their devices for online activity, especially if similar to the Zoom / Go1 (LMS) interfaces.	Learners with low tech literacy need a variety of supports to participate with ease / confidence. Requires tech support that PBS tutors / course administrators will not themselves possess.
Online Environment Zoom, MS Teams or similar for online tutorials.	Accessible from anywhere with internet / Wi Fi. Very efficient – no travel, no facility, no set up	Some loss of inter-personal communication, e.g. body language. Tutor - Learner interactions weaken in larger, >8, groups. (Noting that this is true in any environment)
Online Environment Self-directed learning (via Go1, Scope's learning management system)	Once resources are in place (video, activity guides etc) it is the ultimate in flexibility, accessibility, and cost-effectiveness.	No real-time feedback, so resources need to be high-quality for the learner cohort. Mitigated by access to Discussion / Query Boards and set times for ad hoc tutor Q&A (Zoom). Noted that although generally positive about online learning, many DSWs expressed a preference for classroom, set-day training.
Virtual Reality (VR) Experiential learning	Wow factor for many learners, seen as innovative, new, exciting. Permits safe and repeatable practice. Headsets are increasingly affordable, mobile and high-quality supporting training / coaching at scale. Other benefits* are a function of the quality and relevance of the VR content – see the Evaluation Report for detail on such VR design and UX factors. ***Note:** Overall, the PBS in Action VR resources have recorded very positive learner reactions (as to user experience and learning efficacy)	A minimum of learner orientation is required. A minority (c 1/10 – 1/12) of learners experience motion-sickness and alternative activities need to be available. Asset management (storage, distribution, tracking, updating / testing) is required. VR experiences require an upfront investment and is expensive (for highest quality) unless subsequently used at scale.

Technology Take Out:

DSWs work in a relatively low-tech environment, however in recent years, technology has become increasingly used to meet professional development needs. The pervasive use of online tools during the pandemic has accelerated workforce readiness for tech-enabled activity. Significant benefits await organisations that choose to fully harness the online / virtual environment. It must, however, be wholly supported and familiarity with such tools embedded in the workforce environment – enabling a seamless uptake of learning and practice resources made available in that environment.

2.11 Next Steps

Next Steps for *PBS in Action / VR* are envisaged as:

- Delivery as a targeted training product within the Scope workforce
- Integration of the VR resources (and syllabus content as appropriate) into Swinburne VE (TAFE) teaching programs.
- Building the longitudinal evidence base for the efficiency, effectiveness, and workforce / customer outcomes
- Continued exploration of alternative deployment models for *PBS in Action / VR*, i.e. its integration with pre and post-training coaching and on-the-job supports as well as a broader use of technology as an enabler of workforce training that achieves and sustains staff safety, greater confidence and mastery of core skills – such as person centred and positive behaviour support practices.

Within these Next Steps, future **design** considerations are greatest in respect of deployment models for the product, such that the value it seeks to impart to learners is a seamless fit with their:

- need and motivation to learn,
- environment and technology readiness and
- engagement and enjoyment of the experience.

A safer, more confident, and capable workforce awaits.

3 Gallery

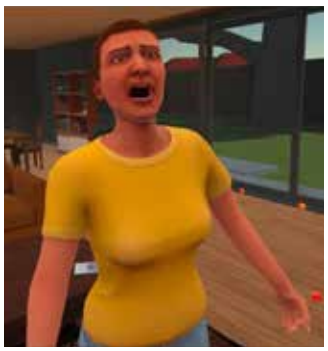
Early days – DSW prototype testing using tethered headsets and ‘super laptops’


Lockdown days – teaching via Zoom, DSWs supporting Sophie in wireless VR headsets

PBS script writers and tutors, Aoife McCann, Tash Drozdoff and Jacinta Punaro working on a VR scenario.

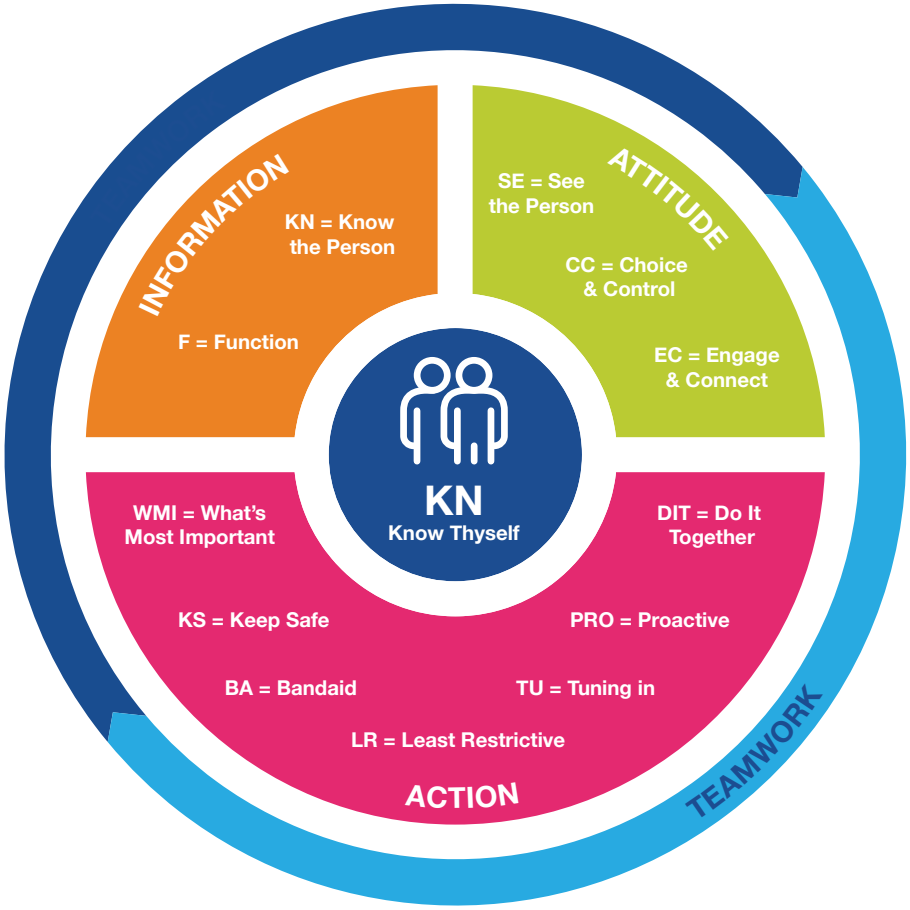

An actor in motion capture suit and studio, portrays Sophie at the kitchen counter.


Behaviours – positive and more challenging ones


Starting the *PBS In Action* course on Go1 with a welcome from the Tutor Team

Tutors represent Scope's PBS Practice, Scope's Learning & Engagement team and Swinburne's Vocational Education (TAFE).



VR Research Day, April ‘22





PBS in Action / VR – Learner Comments

“has been a game changer in the way I support my clients.”

“…great foundation to better understand the person with behaviour of concern.”

“Sophie represents a good number of people that Scope support with the same characteristics. I feel that Sophie is a safe scenario which does allow support workers to really excel at developing the skill of being ‘proactive’ rather than ‘reactive’.”

“Her [Sophie’s] facial expressions really tell you when you’ve done the wrong thing.” “I was free to make a mistake no one was judging.”

“Sophie always forgets” [i.e. it is safe to make mistakes in the VR scenario]

4 Acknowledgements

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5 Appendices

I PBS in Action / VR Learning Objectives

II PBS Learning Principles

Appendix I

Learning Objectives (Kirkpatrick Levels 1 &2 Outcomes)

Week 1	**PBS Course 1: What is positive behaviour support?** As a result of completing Week 1, you will be able to: • Define 'positive behaviour support' as per McDonald and colleagues definition. • Explain what is and what is not a behaviour of concern. • List the 14 PBS principles and explain each in brief.
Week 2	**PBS Course 1: PBS Principles in action** As a result of completing Week 2, you will be able to: • Apply the PBS principles in a simulated workplace situation.
Week 3	**PBS Course 2 & 3: The role of a DSW, Human Rights & Legislation** As a result of completing Week 3, you will be able to: • Describe the role of a DSW in terms of purpose rather than task • Explain how a DSW can work to uphold duty of care AND dignity of risk • Provide an example of evidence-based practice at work • Complete a STARR chart and explain why it is important to do so • Explain the team process for using a plan • Explain F – R – E – D and provide a simple example of what each means • List two key pieces of legislation which provide the legislative framework within which we work
Week 4	**PBS Course 4: Set for success - Be Proactive** As a result of completing Week 4, you will be able to: • State the goals of PBS • Explain why quality of life is so central to PBS • Describe some quality-of-life indicators • Develop strategies to increase a person's quality of life
Week 5	**PBS Course 5: Strategies for staying safe** As a result of completing Week 5, you will be able to: • Explain what being vigilant means and provide a workplace example • Describe the role of reactive strategies • Explain the five phases of the behaviour curve • Provide an example demonstrating each of the 8 reactive strategies

Appendix II

The 14 PBS Principles.
Quick reference guide *(Page 1 of 2)*

Information	**KNOW THE PERSON** KN	• Who they really are • Documentation – informing yourself, Personalised approach • No assumptions
	THE FUNCTION F	• All behaviour is a communication • A need that needs to be met • Not always clear • What we know about the person can help us determine the function • Better ways to meet the function
Attitude	**ENGAGE AND CONNECT** EC	• All about relationship building – us and others • Positive relationships expand a person's – feelings of safety – window of tolerance • Serve as a protective factor
	SEE THE PERSON SE	• See the person not the behaviour • Listen to understand • See the potential • Risks vs. rights • Upholding dignity and respect
	CHOICE AND CONTROL CC	• Make own choices – it's a right • Providing support to make choices • Choices may be different to ours • Looking for alternatives where some choices are not available
Action	**WHAT'S MOST IMPORTANT** WMI	• Making an informed decision • Errand vs engagement • Being flexible
	BAND AID BA	• Short term solution • Reactive • When you can't meet the immediate need • Reflect and improve for next time
	KEEP SAFE KS	• Awareness of potential harm /danger/ risk • Have an effective plan and know when to implement your "keep safe" strategies • Understanding the stress / anger cycle • Look for ways to reduce the risk

Appendix II

The 14 PBS Principles cont.
Quick reference guide *(Page 2 of 2)*

Action *(Cont.)*	**DO IT TOGETHER** DIT	• Person Centred Active Support (PCAS) – do WITH, not FOR • Promote empowerment and sense of achievement • Strengths based approach • Every moment has potential – look for opportunities to involve the person • Building independence
	PROACTIVE NOT REACTIVE PRO	• Focus on increasing quality of life, inclusion and participation • Skills building • Managing the physical environment • Additional influences – understanding and addressing these where we can
	LEAST RESTRICTIVE LR	• Understanding restraint and legislation • Duty of Care vs Dignity of Risk • Zero tolerance of 'punishment' and imposed consequences • Rights and freedoms • From least to most restrictive
	TUNING IN TU	• Observing and asking questions • Consider what the other person may be experiencing • Adjusting your approach accordingly • Building better understanding with learned knowledge
Inner Core	**KNOW THYSELF** KT	• Maintain professional boundaries • Self-reflection and self-awareness • Awareness of your core beliefs • Knowing your limits, including strengths and weaknesses • Accepting different opinions • Self-care
Outer Core	**TEAMWORK** TW	• Everyone working together • Respect and value for all contributions • Shared goals and priorities • Open communication • Consistency