GENDER EQUITY

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Supporting Gender Equity Education

A RESEARCH PROJECT TO INFORM GENDER EQUITY UNITS OF COMPETENCY

July 2019

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About Women's Health Victoria

Women's Health Victoria (WHV) is a state-wide women's health promotion, advocacy and support service. WHV works collaboratively with women, health professionals, policy makers and community organisations to influence systems, policies and services to be more gender equitable to support better outcomes for women.

As a state-wide body, WHV works with the nine regional and two state-wide services that make up Victorian Women's Health Program. WHV is a member of Gender Equity Victoria (GEN VIC), the Victorian peak body for gender equity, women's health and the prevention of violence against women.

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MONASH University

Foreword

Gender inequality is a recognised social issue in Australia, as evidenced by the plethora of national, state and local strategies, plans and legal instruments developed to address it at its core. The Royal Commission into Family Violence (Victoria) also uncovered that family violence is a gendered crime, as 75 per cent of victims are women (*Safe and Strong:* A Victorian Gender Equality Strategy, Victorian Government, 2018).

With the investment and impetus in Victoria following the release of both *Safe and Strong*, Victoria's gender equality strategy, and *Free from Violence*, Victoria's prevention strategy, there is significant need to expand the gender equity and Prevention of Violence Against Women workforces and ensure these workforces are appropriately skilled and qualified. However, at the time of commissioning this research, there was no formal accredited course or training package qualification available to credential existing practitioners and provide opportunities for professional development and/or career transition. Nor was there accredited training available that could be imported into generalist qualifications to build competency in gender equity for workers who can contribute to gender equity in the workplace and in the community.

To meet this gap the Victorian Government, through the Department of Education and Training, funded Women's Health Victoria (WHV) in conjunction with a group of thought leaders to develop an accredited Course in Gender Equity.

In looking at what was required to develop and deliver such a course it was identified very early in the process that it would not be enough just to develop the course, that we would also need to identify the teaching practice that would support delivery of such a course. Furthermore, trainer competency would need to be developed to deliver this new course to such a broad audience.

This report documents the evidence base, as identified by Monash University, for the pedagogical approach required to teach the new Course in Gender Equity. It provides a teaching framework to inform teaching practice.

Women's Health Victoria recognises the support of the Gender Equity Training Project consortia members – RMIT University, ACEVic, Women with Disabilities Victoria, Monash University, Knox City Council, Coonara Community House, Yarrawonga Neighbourhood House, and the external participants who contributed to the formal consultation process in the development of the Course in Gender Equity and this research. Refer to Women's Health Victoria's website for further details www.whv.org.au/our-focus/gender-equity.

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1. A research project to inform gender equity units of competency

1.1 BACKGROUND

This research sought to develop an evidence base to guide the development of teaching and learning approaches to inform the development of accredited units of competency in gender equity and the teaching practices to support delivery of gender equity training. The research supports the broader Gender Equity Training Project and body of work undertaken by Women's Health Victoria (WHV), ACEVic (the peak body for Adult and Community Education in Victoria), and RMIT, which sought to develop a set of eight accredited units of competency in gender equity and a range of non-accredited training modules to support gender equity in the workplace.

The accredited gender equity units of competency and resulting Course in Gender Equity is intended to meet the industry needs of the emerging workforce(s) in gender equity and primary prevention of violence against women (PVAW), as recommended by the Victorian Royal Commission into Family Violence. The units aim to develop competency in addressing gender inequality in the workplace as it is considered to be the key driver of violence against women. They also seek to develop specific skills around doing gender equity work so as to influence workplace practice and, more broadly, indirectly influence the broader community.

Key elements that have influenced the development of the units are:

- *Our Watch*, Australia's National Research Organisation for Women's Safety (ANROWS) and VicHealth (2015) *Change the Story,* which outlines the evidence and conceptual approach to prevention of gendered violence
- *Safe and Strong: A Victorian Gender Equality Strategy (2016)*, which outlines the Victorian Government's vision and priorities for promoting gender equality within the Victorian community
- *Free from Violence: Victoria's Strategy to Prevent Family Violence and all Forms of Violence Against Women*, a state-wide tool for primary prevention based on the recommendations from the Royal Commission into family Violence

The rationale for the development of these units of competency is to reduce the instances of gender inequity, which is seen to be created and perpetuated by gender norms, practices and structures, manifesting in gender stereotypes, attitudes, behaviours, as well as policies and systems.

> *…the latest international evidence shows there are certain factors that consistently predict – or drive – higher levels of violence against women. These include beliefs and behaviours reflecting disrespect for women, low support for gender equality and adherence to rigid or stereotypical gender roles, relations and identities.*
>
> (Change the Story, Foreword)

This project aims to overturn the norms, practices, structures and values which perpetuate inequity through education. Bohnet (2016) states that unconscious and conscious stereotyping, prejudice, habits and beliefs need to be traced and 'unfrozen', and then 'reset' to ensure individuals not only commit to and eventually behave differently, but also increase their competence regarding gender equality and bring about change in others (pp. 58-59). Unfreezing these factors through education and training allows individuals to not only understand the impacts of gender inequity in different settings, but also to acknowledge and accept gender equality as a human right, as the leverage for reducing and eliminating violence against women, as well as contributing to both business performance and cultural excellence in organisations.

Put simply - when workers are educated and understand the impact of gender inequity, they become the voice that enables gender equality to become a reality.

In response, these units of competency aim to contribute to the capacity of current and future workforces to extend this understanding and, in so doing, workers will:

- be able to effectively implement interventions to promote gender equity in workplaces and in the community; and
- contribute directly or indirectly to preventing family violence and violence against women.

Gender equity work can take place across the lifespan and across many settings. Therefore the target groups for the Course in Gender Equity could be any of the following:

- educators and trainers, including early childhood educators;
- health and community services workers including youth work, disability, aged care, mental health, alcohol and other drugs, family violence, health promotion and community development;
- workers from sport, recreation, media, arts and culture sectors;
- human resource staff and leaders across a broad range of industries and sectors; and
- State and local government employees of all levels working in a diverse range of departments and roles that correspond to gender-sensitive planning and policy, as well as human resource management.

1.2 PURPOSE OF THIS APPLIED RESEARCH

The aim of education in this context is to challenge or transform the perspectives of learners who engage with the specified units of competency, and increase their gender equity-related competence such that they can devise and provide solutions that enable effective workplace change (Bohnet & Klugman, 2017). To achieve this, we are seeking to bring about the transformation of people's 'hands', 'hearts' and 'minds'. By this we mean that the units of competency rest on transforming participants' practice, values and understanding, and their capacity to achieve a similar transformation with other people in the workplace.

This research set out to identify:

1. How the application of feminist frameworks and capability-based approaches would apply to teaching the gender equity units of competency
2. A framework for implementation that would include design principles to inform gender equity units and aligned teaching, learning and assessment strategies

1.3 THE APPROACH

The approach taken to this research was to review secondary data related to the application of feminist frameworks and capability-based approaches within adult learning contexts in order to develop a framework for implementation of the gender equity units of competency. It was determined that there were two important aspects to this project.

The first hinged on the concept of competency which is the educational context within which these units are situated. This prompted a review of literature that identified the enabling and limiting factors of this environment. The researchers sought a framework for competency in the literature that would enable the achievement of learning outcomes that related to skills and underpinning knowledge as well as a strong focus on values.

The second aspect of this project was influenced by literature that presented particular teaching and learning frameworks that sought to bring about behavioural changes and advance an understanding of the features that:

- influence individual meaning making and behavioural change
- acknowledge the social contexts in which individuals are situated and in which learning takes place
- recognise the power of critical reflection as the basis of individual and social action
- appreciate that teaching and learning about gender equity should mirror the intersectional approach that underpins the knowledge requirements as defined within the units of competency.

This research speaks to both these aspects. This report brings together a range of literatures to positively support the education endeavour to target gender equity. It is intended to act as a broad frame for the educational design of the gender equity units of competency (the overarching approach rather than the specific design of the units in particular); to suggest frameworks for understanding competency in the context of situating education to transform skills and values; and to guide teaching and learning practices so that they may effectively support the achievement of the educational aims of this work.

The assembly of these standpoints and practices are depicted visually below:

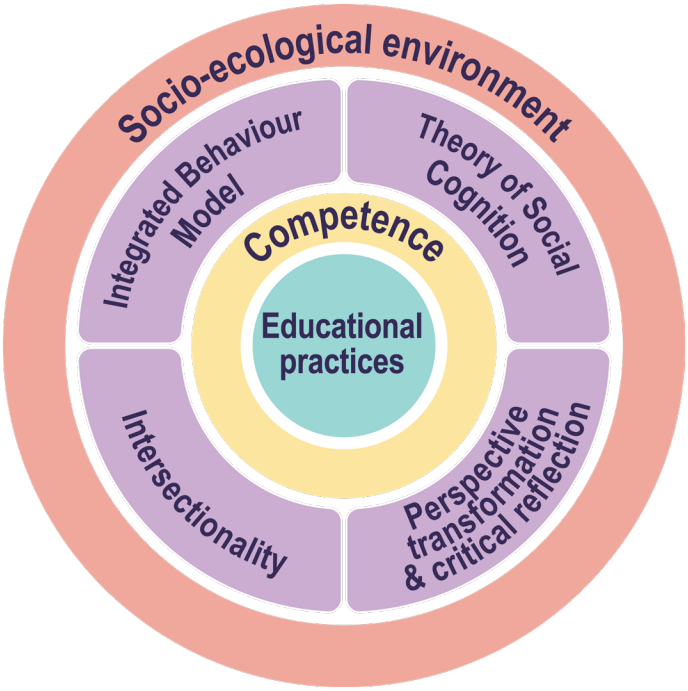

Figure 1: A framework to guide design and teaching of gender equity accredited units of competency

To guide the intentionality of educational practices, situated in the centre of the diagram, the following supports this:

1. A rich understanding of what constitutes gender equity competency. To achieve this within the current vocational education and training context, the report provides a brief background to the evolution of competency-based education in Vocational Education and Training in Australia so that the spaces for this rich understanding can be effectively located. This means it identifies where, according to previous research, limitations to achieving this richer understanding may lie and where there are areas that offer potential. It then presents a re-framing of competence based on a rich understanding of the concept so that educational practice has greater possibility for achieving the positive change it seeks to influence.
2. Recognition of the socio-ecological contexts in which both the learners and the gender equity units are situated. A systems lens is applied to understand the complexity and inter-relationships of environmental influences on both individuals' propensities to develop and/or change their gender equity-related competence, as well as the effect of the specific gender equity units and their accompanying educational practices.
3. Four practice perspectives that are fruitful to activating this rich view of competence referred to above:
    - The Integrated Behavioural Model which outlines perspectives on practice to achieve behavioural change
    - Theory of Social Cognition which outlines a framework for practice so that teaching increases desired behaviours as learners go through an internal process that consciously informs the manner in which people interact
    - Perspective transformation and critical reflection which outline principles of practice that build a critically reflective orientation in individuals and groups and which propel people to transform perspectives or their actions
    - An intersectional approach to educational practice that sits at the core of the gender equity units of competency

It is proposed that the combination of these ideas strongly positions educators and educational leaders to guide adult learners to question gender norms, practices and structures, experienced individually and socially, and reflect on the personal and professional values that influence practice.

These are presented in this report in the following structure:

- **Practice contexts** in which educational practice is situated
- **Practice perspectives** to inform the teaching, learning and assessment practices that may effectively be used to achieve learning outcomes
- **Practice strategies** which present approaches to orient and guide teaching and learning practice
- **A design framework** which draws the ideas together to guide the design and delivery of gender equity units of competence

SUPPORTING TEACHING AND LEARNING IN GENDER EQUITY	
Practice contexts	Understanding what comprises competence Understanding the ecological system which shapes individual interaction
Practice perspectives	Integrated behaviour model Theory of social cognition Perspective transformation and critical reflection Intersectionality
Practice strategies	Pedagogy of discomfort Narrative Problem-based learning Working on and with gender online
Design framework	To guide the design of gender equity units of competence and identify implications for teaching, learning and assessment

Table 1

2. Executive Summary - Supporting gender equity education

A review of the literature identifies practice contexts, perspectives and strategies which, together, inform a framework to guide the educational work underpinning teaching and learning of the gender equity units of competency.

2.1 PRACTICE CONTEXTS

Increasing competence around gender equity

Working within a competency-based context of vocational education in Australia means that educational practice is framed by the dominant model adopted. This has been argued by researchers as being a functional model, focused on technical, specific and generic skills. The educational work around gender equity relies on educational approaches that seek to transform learners' understanding, skills, practices and values. To this end, the research identifies a model of competence that aligns well with this social and political project.

Drawing on the work of Baartman and de Bruijn (2011) with adolescent vocational education students in the Netherlands, the proposed competence model conceptualises competence as both a tangible suite of attitudes, skills, knowledge, values and behaviours, as well as a learning or development process. This conceptualisation allows for an individual's competence to increase, change or develop, as well as be measured and/or applied differentially for greatest effect in different situations and contexts. Further, the model proposes three ways in which an individual draws upon their competence to deal with or perform in different gender-related situations: (i) automatically or subconsciously, (ii) conscious action with reflection, or (iii) adoption of new mental models and behaviours.

The model's key suggestion is that as individuals face different gender-related situations, they will need to draw on both existing and new competences, such that improved gender equity results. As these situations and tasks become more complex, less practised and/or challenging, individuals need to shift from performing habitually or subconsciously to being alert and aware in the situation to either practice different behaviours or be open to transforming perspectives and behaviours. Further, as situations and tasks change, individuals will need to become more flexible, shifting from automatic action, where no reflection takes place and competence is not improved, to being reflective of planning and action and critical of situation outcomes to ensure both their own gender-equity competence and workplace culture improves.

Understanding the socio-ecological context

Applying a systems lens to individuals' gender-related competence means that the environments in which individuals perform are critically important to understand (Ford, 1987). Bronfenbrenner's (1977, 1979) ecological environment model and Vondracek, Lerner and Schulenberg's (1986) developmental-contextualism framework are two useful environmental perspectives to help consider the educational work underpinning teaching and learning of the accredited gender equity units of competency. Both theories assume individual gender equity-related competence development, in this case, are a function of contextual variables; the individuals themselves; the relationships between the individual and their familial, work and social networks; as well as the interactions between all of these elements combined.

Further, both perspectives also allow the effect of the units and their accompanying educational practices to be centred in an environmental system influenced by a number of inter-related elements. These elements include the relevance of the competence model proposed in this project, the associated education and learning theories, the individual learners themselves and their propensity to increase their own gender equity-related competence, the learning context, as well as the broader macro-environment including government policy, organisational cultures and policies, and social trends and movements regarding gender equity.

2.2 PRACTICE PERSPECTIVES

The research presents four perspectives that align well with prospective educational design and practice to teach about gender equity. The first two are behavioural in orientation and present complementary perspectives that identify how to influence behaviour. The second two emphasise questioning social assumptions, norms, structures and values in order to transform them.

2.2.1 Integrated Behavioural Model (IBM)

The IBM asserts that individuals' behavioural intentions are dictated by three key factors, which talk to the individuals':

1. attitudes towards the new behaviour, as it is influenced by emotional responses to the idea of performing the new or changed behaviours, and the consequences or outcomes of performing them and will ultimately determine whether new or changed behaviours are adopted
2. behavioural intentions as they are influenced by others, including new role modelling of behaviours by others, past experiences of role modelling of behaviours by others, and expectations (perceived or real) by others for the individual to behave in a particular way
3. confidence in their ability to change and/or adopt the new behaviour can influence the individual's behavioural intentions, as does the individuals perceptions of how easy or difficult it will be to change and/or adopt the new behaviour.

Overall, individuals will have strong intentions to adopt or change behaviour if they feel positively about targeted behaviours, foresee positive outcomes or recognition from performing such behaviours, perceive positive support from others when changing their behaviours, are expected to behave differently and are encouraged to do so, feel confident in their abilities to change or adopt behaviours and, feel that the environment or situation in which they are seeking to change their behaviour is conducive to such change.

2.2.2 Bandura's Theory of Social Cognition

Bandura's Theory of Social Cognition suggests that new behaviours are often learned by observing others as 'models'. These individuals with noteworthy behaviours impact on others both consciously and subconsciously through intrinsic and extrinsic rewards. In this context, these observed behaviours are internalised, and may be repeated if they are strengthened, reinforced and repeated by the same rewards. Observing vicarious rewards of these behaviours solidifies these actions, and reinforces the repetition and establishment of these behaviours. In this context, individuals become aware that their behaviours result in consequences, which could be either productive or present them with challenges. Therefore behaviour is a product of internalised processing. Bandura refers to these processes as mediational, as individuals attend to certain behaviours, then retain these through observation, begin to reproduce these when they receive their own rewards and gratification, and are prompted through motivation to reproduce these behaviours. Some situational and environmental factors also impact on behaviour; however, human beings are intentional in their behaviour through constantly processing varying elements. Internal elements (thought processes) impact on behaviour, and behaviour subsequently impacts on internal elements, in a cyclical manner.

2.2.3 Perspective transformation, reflection and action

Mezirow's (1997) Transformative Learning Theory focuses upon the factors that influence the transformation of perspectives among learners. Drawing on learner reflection, Mezirow describes learners who go through a process by which they reflect on their lives and the assumptions shaping their situations, challenge these with new and different learning experience and produce new meanings and perspectives. Educationally, this requires educators to encourage learners to reflect on their experiences, beliefs and values.

Freire's (2005) work supplements these ideas with a notion of critical consciousness to build learners' capacity for effective social action. In contrast to Mezirow's work with adults returning to study in developed and higher education contexts, Freire's work was drawn from developing country contexts where he worked with disenfranchised and illiterate adults. His educational work focuses on working with learners to learn the 'language' of how the world works and, through the power of such naming, to change things. He describes six states of growth experienced by learners when developing critical consciousness and awareness, with the last being one in which reflection and action come together as 'praxis' aimed to create new social practices.

2.2.4 Intersectionality

Intersectionality is a useful way of framing the complexity of individual lived experience and the complex social factors which contribute to an individual's experience of advantage and disadvantage. The originator of the expression 'intersectionality' has likened the concept to a road intersection (Crenshaw, 2016): "the roads are identities, like race and gender, and the cars on the road are policies affecting those identities. Crenshaw's point was that we needed to see things in terms of their intersections in order to explain them more effectively" (Gao, 2018).

In recent years, the concept has been used to explore the experience of social inclusiveness and exclusiveness quite broadly. This has resulted in a comprehensive list of social factors being used to identify and study disadvantage, for example gender, sexuality, race, class, culture, age and ability. Skelton (2019, para 2) defines its broadened contemporary scope in this way: "the concept of intersectionality describes the social, economic, and political ways in which identity-based systems of oppression connect, overlap, and influence one another."

Intersectionality can be used in classroom practice to increase awareness of personal experiences of difference, disadvantage and social inequity. Its capacity to deal with complex social and identity factors means an intersectional approach is well-matched to the challenge of building gender equity-related competence in learners such that they can devise and provide solutions that enable effective workplace change. As equity-focused educators, we must develop a practice that acknowledges and honours the complicated and gendered aspects to the social spaces each student — and we ourselves — occupies (Skelton, 2019). We must be mindful of the question: "To what extent, and in what ways [do educators] demonstrate a personal commitment to enacting social justice to embrace the tenets of intersectionality and integrate this framework into their teaching?" (Jones & Wijeyesinghe, 2011)

2.3 PRACTICE STRATEGIES

This research also presents specific approaches to guide teaching and assessment practice. Such approaches recognise that gender equity work may often spark resistance and a sense of challenge for learners. The research proposes that a consideration of the pedagogy of 'discomfort' will prepare educators to work productively with these challenges. The practice strategies outline the importance of narrative in connecting the 'everyday' worlds of learners to the more universal ideas and rights inherent in gender equity. The strategies situate problem-based learning as a fruitful approach to present 'real world' cases to learners who will have diverse and unequal experiences of gender equity in workplace settings. The practice strategies also include approaches to be considered when undertaking this work in an online learning environment.

2.4 DESIGN FRAMEWORK

This research identifies a framework to inform the development of the units of competency. The framework outlines a set of principles derived from the theoretical concepts contained in this research report. It includes suggestions for educators to take notice of, as these relate to teaching and learning approaches, setting up the educational environment and facilitating interaction among learners. The framework presents specific teaching and assessment ideas that are well suited to achieve the three levels of competence identified in the integrated competence model proposed in the research.

3. Practice Contexts

3.1 SITUATING GENDER EQUITY UNITS OF COMPETENCE IN AN AUSTRALIAN VET SETTING

A competency-based training environment frames Vocational Education and Training (VET) in Australia. Reference to this competency-based training (CBT) refers to a focus on workplace learning, with a specific orientation around the assessment of industry-specific standardised and observable skill outcomes rather than on traditional course inputs or content. In Australia, these skills standards are determined nationally by industry stakeholders including peak employer groups and endorsed by government representatives. The agreed competencies are formally credentialed in stepped qualifications deemed appropriate to determined skill sets in occupations. Since the mid-1990s, these skill bundles have been gathered together as 'Training Packages'.

CBT is a symbol of later twentieth century VET transformation and a defining feature in Australia. CBT has been considered by some as '(a)rguably the linchpin, as well as the most enduring feature, of Australian training reform' (Harris & Hodge, 2009, p. 2) in the late 1980s, and 'in many respects the foundation of training reform in Australia' (Smith and Keating, 2003, p. 120). Its evolution, and the effectiveness of its policy and practice directions, have been discussed over time (Clemans and Rushbrook, 2011; Clemans and Newton, 2016). Some of these ideas are useful to surface here because of the specific teaching and learning work that is required to transform understanding and develop skill sets in order to achieve gender equity readiness. The location of this work within a CBT environment requires acknowledgement of what this environment affords this 'project' as well as to the explicit or implicit limitations that it may pose.

3.2 THE CALL FOR INDUSTRY RESPONSIVENESS

The evolution of competency-based training in the VET sector, and the active structuring of this system to respond to industry needs, was driven by repeated voices from industry over recent decades that potential labour force supply did not adequately meet the nature of their demand for growth, innovation and flexibility (Callan 2003; Gibb & Curtain 2004; Mayer 1992; O'Connor 2013).

CBT was then conceived of as the educational solution to the perceived educational problem of an education system that lacked responsiveness. For example, this can be seen in a view put forward by the then Minister of Education in the late 1980s:

> *A highly trained and flexible labour force makes possible sustained improvements in living standards through the capacity to adapt to major changes in the economic environment.... Education and training will play a vital role in productivity performance directly conditioning the quality, depth and flexibility of our labour force skills...*
>
> (Dawkins & Holding 1987: 3-4).

The policy context into which education and training then took hold could be seen as one which stepped back from a broader education tradition that had been adopted within public education providers since the mid-19th century to one which emphatically favoured the needs of the economy over those of the individual (Rushbrook 1995). This heralded an approach to vocationally-oriented education and training that took a fairly narrow view around 'learning and earning' (Brown, Lauder & Ashton 2011) or, put differently, a 'learning and earning' ethos dominated.

3.3 ELEMENTS OF A COMPETENCY BASED TRAINING APPROACH

The construct of competency within the Australian system is defined by the Australian Government's Australian Skills Quality Authority as:

> *The consistent application of knowledge and skill to the standard of performance required in the workplace. It embodies the ability to transfer and apply skills and knowledge to new situations and environments.*
>
> (www.asqa.gov.au/standards-vac/definitions)

Schofield and McDonald (2004) add that, in defining competence, it is necessary to clearly distinguish between:

- Work performance, and its outcomes which are observable, measurable and assessable; and
- The constituents of competence: the personally held skills, knowledge and abilities which, in combination, underpin performance. (Schofield & McDonald, 2004, p. 16).

According to Schofield and McDonald (2004), "the current approach [is that]…performance and outcomes are assumed to be the same as skills and knowledge, and competency standards are taken to be specifications of knowledge and skills" (p. 17). Australian competency statements do not, however, include all aspects of competency that underpin performance (Guthrie, 2009).

The competency-based system in Australia has been summarised by Guthrie (2009, p. 7) as:

- based on competency standards
- outcomes and not input or process focused
- industry involved/led
- flexibly delivered, involving self-paced approaches where appropriate
- performance-oriented
- assessed using criterion-referenced rather than norm-referenced approaches, and allowing for the recognition of prior learning

Currently, an accredited unit of competency includes a list of specified occupational knowledge and skills, and clear parameters around how the knowledge and skills should be applied in the workplace to a specific standard or level of performance. From this specification, training delivery and assessment of competency of a specific workplace task or action takes place. Where the unit of competency forms part of an industry endorsed training package the units are developed through a process of national consultation with industry (https://www.education.gov.au/training-packages). Units of competency developed to form an accredited course must follow the same industry consultation process. Accredited courses are registered with either a state training regulator or the national regulator, Australian Skills Quality Authority (ASQA), who provides national recognition of courses that meet an established industry, enterprise, educational, legislative or community need (www.asqa.gov.au/course-accreditation). Curricula developed to meet the accredited units of competency outcomes and to support training delivery and assessment are generated by industry, teachers and subject matter experts.

In summary, CBT was introduced into Australia to tie workplace performance and learning together in order to construct an educational system that was responsive to industry needs. Both the context and the model provides particular affordances around what can be achieved through teaching and learning as well as posing certain limitations around the development of knowledge and skill.

3.4 AFFORDANCES OF CBT IN WORKPLACE LEARNING

As far back as 2004, Chappell (2004) discerned that the competency-based model introduced in Australia had enabled authentic changes in VET practice which he characterised as becoming more learner-centred, work-centred and attribute-focused (Chappell, 2004, p.2). This was in response to growing demand by employers for workers, including "knowledge workers, to possess the cognitive and behavioural skills to adapt to changing social and professional expectations" (Schofield and McDonald, 2004, p. 9). The CBT system was then described as making a contribution to the construction of new worker-learners (Chappell, 2004, p.5).

Changes in VET practices at the time suggested that vocational settings were driven less by behavioural (observable) and cognitive (learners' mental processing) approaches and more by constructivist approaches in which learners recognise the contexts that shape and give meaning to their worlds. At the time, therefore, Chappell argued that practice was more responsive to teaching and learning as it had the potential to address holistic needs of workplace and social transformation. Workers were perceived as the originators of working knowledge as much as they were to learn how to apply it, and that learning (rather than instruction leading to formal credentials) was the central educational driver in contemporary times (Chappell, 2004, p.5).

Such characterisation of CBT aligns well with the teaching and learning of gender equity within a competency-based framework. This project relies on a view of CBT which is not solely concerned with achieving prescribed training outcomes, meeting minimum standards and equating performance with competence. Instead, it requires a richer view where the broader context in which knowledge is situated demands recognition (Hackett, 2001; Wojecki, 2007). The growing sophistication around CBT and its impact on workplace learning reflects a trend, from narrow to broad, where CBT aspires to reach 'best practice' rather than to attain the minimum standards it initially aimed to realise.

This means that aspects of learning beyond technical and procedural knowledge (conceived often and narrowly as observable outcomes) such as theories, attitudes and contexts have been integrated into competency-based teaching and learning practices.

In this vein, CBT is recognised as having potential to expansively accommodate learning that teaches 'why', based on practical judgement as well as 'how' (Beckett, 2004). By paying attention to the processes of learning as much as to the outcomes of learning in this way, Beckett positions competency as having something concrete to offer workplace learning with a consequent positive impact on workplace performance.

3.5 LIMITATIONS OF CBT IN WORKPLACE LEARNING

There are aspects of competency-based training within the Australian context which could potentially limit what it may achieve through teaching and learning, particularly when teaching about gender equity in this context. One of these aspects is the relationship between the knowledge encompassed within Training Packages and its capacity to express authentic practice. Some researchers have seen competency standards as articulating descriptions of work that have been deemed an insufficient or unrealistic expression of contemporary experiences of work (Chappell, 2004; Wheelahan, 2007):

> *Competency standards and Training Packages…tend to assume: descriptions of work can be generalised for particular jobs or occupations, a degree of stability in terms of the work skills required and consistency in terms of the requirements different employers demand of workers, vertical career mobility rather than horizontal mobility and standard jobs rather than non-standard jobs, the primacy of technical skills over generic employment skills and that the needs of enterprises and the needs of industry sectors are similar.*
>
> (Chappell, 2004, p. 6).

Wheelahan (2008) argued that the CBT model limits learners' access to the theoretical knowledges that form the foundations of important learning concepts and work-relevant cognitive capabilities. Wheelahan's work (2007) deepened the critique around knowledge, positioning CBT as not only carrying the inheritances of a 'hand/head distinction' but, undesirably, separating the knowledges we often learn that is taught by experts in a field (disciplinary knowledge) and the knowledge we develop within us through our experience of knowing and doing (embodied knowledges). The implicit rejection of disciplinary knowledge (that is, specialist knowledge of an area) in the contemporary vocational education system, in favour of an approach which facilitates learners' construction of their knowledge of the work, has propped up a system in which, according to Wheelahan (2007, p.648) "…a fragmented, atomistic and instrumental view…ignores, to its peril, the need to understand … the relationship between elements and how they are transformed in the context of such a relationship". Schofield and McDonald (2004) similarly highlighted the tendency for competency-based programs to not always draw out awareness and capability in order to "allow for a wide range of contexts and applications [that] are used holistically rather than atomistically" (Schofield and McDonald, 2004, p. 16).

The gender equity units of competency are nuanced and sophisticated expressions of gender equity practice and it is important to consider how the different knowledges (disciplinary and embodied) together with the skills to practise (to act) that sit within these practices are conveyed to learners.

As Wheelahan (2007) reminds us, disciplinary knowledge "provide students with access to the relational connections within a field of study and between fields, and students need access to the disciplinary 'style of reasoning' to move beyond a focus on isolated examples of content… events or experiences" (Muller, 2000, cited in Wheelahan, 2007, p. 642). Furthermore, units of competency tend to cluster knowledge in a manner which treats all content as equal. Wheelahan argues:

> *…[t]he capacity to use particular knowledge at work is an evolving capacity that emerges from broader knowledge, skills and attributes… and 'the generative principles used within the discipline to create new knowledge' Students need to know how these complex bodies of knowledge fit together if they are to decide what knowledge is relevant for a particular purpose, and if they are to have the capacity to transcend the present to imagine the future.*
>
> (Wheelahan, 2007, p. 648).

While this may sound like a philosophical discussion about the nature of knowledge, it has some practical implications. By just focusing on the knowledge and skills to 'do' a job, Wheelahan argued that "CBT assumes that outcomes can be achieved by directly teaching to the outcomes, and in doing so ignores the complexity that is needed to create capacity, and this goes beyond the level of experience in the contextual and situated" (Wheelahan, 2007, p.648-649). Wheelahan (2008) believed that a CBT model limits learner access to the theoretical knowledges that form the foundations of important learning concepts and work-relevant cognitive capabilities. Such restrictions could impede or limit the building of capacity in the individual learner to navigate behavioural change and manage perspective transformation – precisely the capabilities required to realise gender equity practice.

Wheelahan (2016) notes that CBT in contemporary Australia is seriously flawed and maintains a VET educational system that is ineffective in producing the required volumes of career-ready workers who have the capacity to navigate — and advance within — the contemporary work sector. By this view, CBT functions in a crowded and inefficient VET sector, offering "fragmented" (Wheelahan, 2016, p. 190) knowledges and skills. It cannot build "productive capabilities" that equip people to pursue career pathways with effective agency (Wheelahan, 2016, p. 192). The outcomes are students who find their qualifications "worthless" (Wheelahan, 2016, p. 193) in the marketplace and/or who experience difficulty in advancing to higher levels in the workforce.

Finally, we need to consider the positioning of gender within a competency-based framework. The literature points to a number of aspects to competency-based approaches that directly impact women as learners and workers. Fenwick (2004, p. 170), writing about the Canadian vocational education system, identifies a "gender-blind, market-based individualist approach to vocational education". She notes the skill-set of many women includes capacity for "relationship-building, conflict mediation, organizing and knowledge translation" (Fenwick, 2004, p. 175). These are complex skills that are not always recognised as valuable in vocational education programs or workplace-based training. A competency-based training model, in particular, is seen by some critics to focus upon technical skill acquisition along with an unreflective approach towards task completion (Fenwick, 2004; Schofield & McDonald, 2004; Wheelahan, 2008, 2016) and does not always reward emotional intelligence or the application of critical intellect (Fenwick, 2004). This suggests the learning needs of female learners may at times be insufficiently met by a CBT-based learning program.

Similarly, competency workplace-based training is seen to frequently disadvantage women employees in terms of both access (due to their often more limited availabilities arising out of competing demands such as family responsibilities) and their experiences within actual training courses (due to a demonstrated preference for male-gendered forms of "work knowledge" over "relational knowledge or emotional labour") (Fenwick, 2004, p. 174). Likewise, a competency framework applied within workplace performance assessment practices has also been noted to disadvantage women due to "growing recognition of the qualities of co-operation, empathy, listening, nurturing, coaching and so on, often explicitly associated with women, to enhance the performance of managers, both in the business media and the research literature" (Rees & Garnsey, 2003, p. 574).

In considering what is required to teach effectively in order to create the conditions for reflective and transformative practice and knowledge required for gender equity work, recognition of the legacy of competency-based education as a system is required. Educators in this space also need to consider how they bring different knowledges together, and make learners aware of these different sources as this can influence the potential effectiveness in increasing gender equity competence. The achievement of reflective and transformative practice and knowledge development through accredited training requires an understanding of CBT as a teaching and learning context within Australia. It also requires awareness of both its affordances and limitations so that we can optimise the former and limit the latter in the pursuit of increasing competence around gender equity.

Given the work required to widen recognition of gender equity and align practice with that recognition, we cannot afford to forget that teaching and learning practices cannot rely on well-crafted learning outcomes alone to achieve change. Deliberate and intentional strategies to practise according to an integrated model of competence are necessary to transcend any potential narrowness that may be in-built into the current system. We present such a model below.

3.6 WIDENING OUR CONCEPT OF COMPETENCE

How we define and understand competence becomes critical as it frames the impact of the learning outcomes within the specified units of competency. First, to ensure the meaning of competence is not reduced to a description or measure of work-related task performance alone, several authors have emphasised the need to also conceptualise competence as the sets of behaviours individuals need to perform tasks effectively (Gonczi, 1999; Schofield & McDonald, 2004; Woodruffe, 1991). Second, competence is argued as socially situated. This means that contexts fundamentally shape what is taken to be competent practice and, for this reason, competence may be conceptualised differently across different contexts (Wenger, 1998). Some argue that certain behaviours may be regarded as more effective than others in given circumstances (Goodnow, 1990). Third, competence is argued as something that is measurable. This means that its conceptualisation needs to reflect different degrees or levels of performance, abilities or behaviours (i.e. novice to expert or master-level of competence) (Schön, 1983).

To accommodate and integrate these different conceptualisations, a range of competence models have been proposed in literature (Torr, 2008). Le Deist and Winterton (2005) suggest a holistic model of competence that includes (i) cognitive competence comprising knowledge and understanding, (ii) functional competence comprising technical, specific and generic skills, (iii) social competence comprising attitudes, behavioural intentions, both implicit and explicit, and actual behaviours, and (iv) meta-competence, which is concerned with the learning and development processes underpinning acquisition of cognitive, functional and social competence. This model is similar to that conceived by Cheetham and Chivers (1996), who emphasise the interrelation of cognitive, functional, personal and ethical competences that span knowledge and understanding, skills, attitudes and behaviours, values, and both explicit and implicit judgements. Their model has an overarching meta-competence level that attempts to capture and describe individuals' processes of solving problems, learning, self-development and reflection.

Inherent in these models is the idea that competence is both a construct (i.e. an idea containing a few concepts) and a learning or development process. As a construct, competence comprises tangible "motives, traits, self-concepts, attitudes or values, content knowledge, or cognitive or behavioural skills – any individual characteristic that can be measured or counted reliably and that can be shown to differentiate significantly between superior or average [performance] or between effective and ineffective [performance]" (Spencer & Spencer, 1993, p. 4). As a process, the meta-competence concept reflects that increasing levels of competence cultivate individuals' abilities to use and integrate existing skills and knowledge for greater effect, as well as that it facilitates acquisition and implementation of newly acquired skills and knowledge (Kaslow et al., 2007; Lave & Wenger, 1991). It is critical to capture both these ideas about competence — as a construct and as a learning/development process — within an integrated model through which we can frame gender equity-related teaching and learning for the specified units of competency.

Competence development is explained through the work of Baartman and de Bruijn (2011) with adolescent vocational education students in the Netherlands. They propose a framework for explaining how learning processes lead to increasing vocational competence. Three different integration processes are conceptualised: low-road, high-road and transformative integration. These integration processes are hypothesised to take place during the performance of different professional tasks, which ultimately lead to different degrees and types of vocational competence. These competence types are (i) low-road integration leading to automatic performance or action, (ii) high-road integration leading to reflective performance or action, and (iii) transformative integration leading to transformative performance or action, which is largely concerned with a change in individuals' existing mental models and perspectives. The model considers competence as both a construct – knowledge, skills and attitudes – and as a development process. In the model, as tasks or situations become more complex, less practised and/or challenging, individuals need to shift from automatic or subconscious action to conscious awareness and reflection. Further, individuals need to increasingly be open to new skills, knowledge and information and integrate these new competences with existing mental models.

Drawing on this model, it is proposed that the specified gender units of competency can be situated in an Integrated Competence Model as follows.

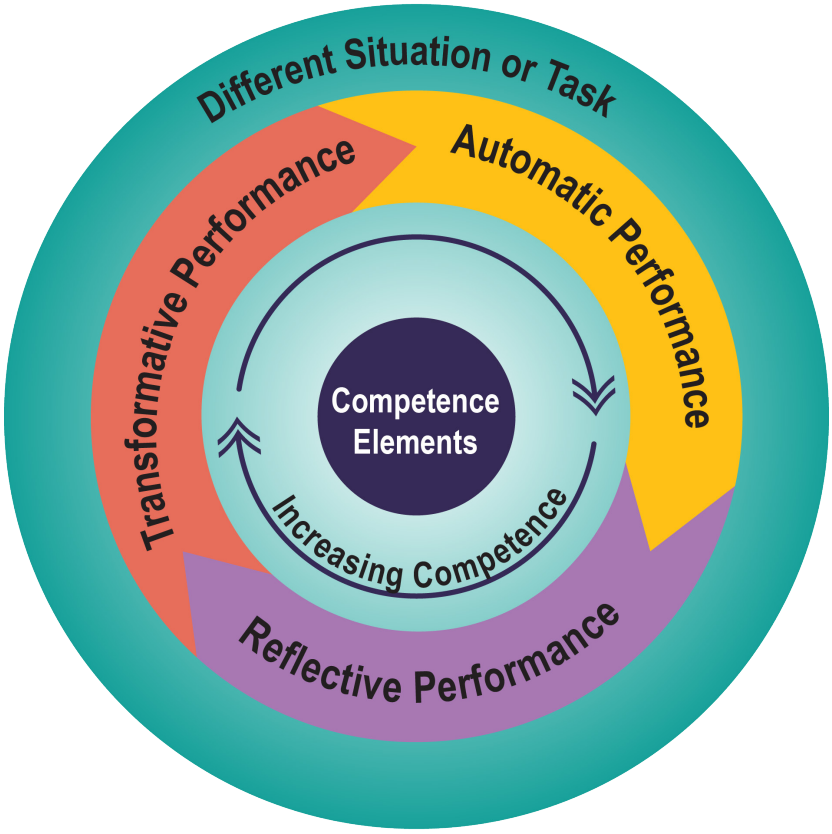

Figure 2: Integrated Competence Model in which to situate gender equity-related competence

The Integrated Competence Model captures the two-fold aim of the specified units of competency around increased knowledge and intentional action. Learning within the gender equity units of competency is intended to increase the gender equity-related knowledge, skills, attitudes and beliefs of participants such that they have both the abilities to recognise different situations at hand and act accordingly. The anticipated outcomes are that gender equity is improved overall in workplace contexts which, in turn, further expands and develops individuals' gender equity-related competence.

The key idea of the model is that the way in which knowledge, skills and attitudes are transferred, displayed or applied in the workplace to effect change or deliver performance depends on both the situation and the competence level or maturity of the individual. Similar to Baartman and de Bruijn's (2011) model, individuals will face different gender-related situations and tasks in workplace contexts. They will need to draw on both existing and new skills, knowledge, information and attitudes to perform such that improved organisational gender equity results, as well as improved gender equity-related competence of individuals. As these situations and tasks become more complex, less practiced and/or challenging, individuals need to shift from performing habitually or subconsciously to being alert and aware in the situation to either practice different behaviours or be open to transforming perspectives and behaviours. Further, as situations and tasks change, individuals will need to become more flexible, shifting from automatic action, where no reflection takes place and competence is not improved, to being reflective of planning and action and critical of situation outcomes to ensure both their own gender equity competence and workplace culture improves.

Graphically, this is represented in the model in two ways. First, the shift from automatic through reflective to transformative performance is deliberately circular, representing the fact that new, ambiguous or challenging situations, for example, may call for transformative change in both competence and existing mental models which, after practice and reflection, become automatic (Boshuizen, 2003). For this reason, it is not represented as a linear trajectory of improvement.

Second, the thin, single-way circular arrow represents the model's assumption that competence is measurable and can increase.

The model suggests that as situations become more complex and/or challenging and as individuals shift to more reflective and critical action/performance, higher levels or greater maturity of gender equity-related skills, knowledge and behaviours are required. Increasing competence in the model is therefore visualised below:

	AUTOMATIC PERFORMANCE OR ACTION	REFLECTIVE PERFORMANCE OR ACTION	TRANSFORMATIVE PERFORMANCE OR ACTION
COMPETENCE CLASSIFICATION	Subconsciousness & habit	Conscious awareness & action	Critical awareness & action
EXISTING VS. NEW	Drawing on existing & practiced skills, knowledge, attitudes & behaviour	Drawing on existing skills, knowledge, attitudes & behaviour. Expanding practice of less developed existing	Incorporates new competences with existing skills, knowledge, attitudes & behaviour
REFLECTION	None	Situational & competence reflection	Situational & competence reflection. Emphasis on critique
DEVELOPMENT	No competence improvement	Competence development through reflection & enriching existing skills, knowledge & behaviour	New competence development through adoption of new skills, knowledge & behaviour, as well as critical reflection of self and situation. Competence development through change in perspectives and integration of new & existing competences with changed mental model
IMPACT ON MENTAL MODELS OR PERSPECTIVE	None	New mental model introduced	Mental model changed. Emphasis on transformation

Figure 3: Increasing gender equity-related competence

Similar to other complex models of competence (Cheetham & Chivers, 1996; Le Deist & Winterton, 2005; Spencer & Spencer, 1993), elements of competence in this model are any skills, knowledge sets, behaviours, cognitive abilities, implicit and explicit attitudes and/or values held by individuals. The model does not subscribe what the nature of these are and acknowledges that they will be both situation and individual-dependent. However, the model does assume three things regarding skills, behaviours, attitudes and knowledge of individuals.

- First, that individuals need to increase their awareness, flexibility and open-mindedness as situations and tasks become more complex, less practiced and more challenging
- Second, reflective capacities need to become greater and more critical as such situations and tasks change
- Third, for new skills, knowledge and behaviours to become a part of individuals' identities, time and practice is required for inculcation

These assumptions are addressed through three dimensions of performance that underpin competence, namely automatic, reflective and transformative performance.

3.7 AUTOMATIC PERFORMANCE

Automatic performance can be conceptualised as a process in which knowledge, skills and behaviours are increasingly connected by means of practice such that they become implicit to the individual and performance can be enacted sub-consciously (Anderson & Schunn, 2000; Baartman & de Bruijn, 2011). Similarly, a new task that shares some of its characteristics with previous tasks may automatically trigger knowledge which is then transferred to the new task (Salomon & Perkins, 1989). Vlaev and Dolan (2015) describe such competence as habitual, driven by "stimulus-response associations learned through repeated practice and rewards [good or bad]" (p. 74). Synonymous with classical conditioning principles, certain knowledge, skills and attitudes can be learned automatically when a behaviour and a behavioural outcome are repeatedly paired with each other (Olson & Fazio, 2001). It may be that individuals are not consciously aware of such pairings, but nonetheless learn and adopt certain beliefs and practices as a result (Rydell, McConnell, Mackie, & Strain, 2006). Such habitual competence can then be often unconscious, as well as potentially independent from conscious truth or reality (Ajzen & Dasgupta, 2015).

In the case of improving gender equity practice, two points are noteworthy. First, automatic, subconscious or habitual gender-appropriate behaviour and practice is an organisational cultural strength. Competence and action do not necessarily need to be reflective or transformative for an organisation's gender equity-related practice to be improved. For example, a Human Resources Manager practised in selection interviews may subconsciously use gender neutral language and questioning techniques when talking with candidates. This desired behaviour needs to be both sustained and role modelled.

Second, habits or unconscious competence can include prejudices and bias that perpetuate gender inequity, a premise Bohnet (2016) claims drives the bulk of societal gender inequity, with "most of this happen[ing] unconsciously" (p. 40). Various gender-related studies have associated unconscious or implicit attitudes and beliefs with both spontaneous and controlled discriminatory behaviours spanning employment decisions, judgements of individuals and social groups, as well as medical diagnoses (Dasgupta, 2004; Greenwald, Banaji, Rudman, Farnham, Nosek, & Mellott, 2002; Hamberg, Risberg, Johansson, & Westman, 2002; Rudman & Glick, 2001). For example, a manager used to talking to their staff in gendered ways and making assumptions of performance based on entrenched gender stereotyping may not only perpetuate discrimination but may also negatively impact team and business performance as a result. To effect change in this case, using the proposed competence model, a transformation of the manager's existing mental models and perspectives would need to occur for them to develop new gender-appropriate language, attitudes and behaviours.

Models of behavioural intent and attitude and behaviour change are therefore relevant to help guide gender equity-related teaching practices in the specified units of competency. This research report draws on Montano and Kasprzyk's (2008) Integrated Behavioural Model which comprises constructs predominantly from the theory of reasoned action/ planned behaviour [TRA/TPB]. The rationale for selecting this model derives from evidence that TRA/TPB-based interventions are effective in contexts where people's intentions to change are

subconscious, have not been established or are low (Hardeman, Johnston, Johnston, Bonetti, Wareham, & Kinmoth, 2002), and where implicit and/or habitual beliefs and attitudes, such as prejudice, need to be changed (Ajzen, 2015; Ajzen & Dasgupta, 2015; Fishbein & Ajzen, 2005).

3.8 REFLECTIVE PERFORMANCE

Reflective performance occurs when individuals encounter situations or tasks that cannot be carried out without conscious thought (Baartman & de Bruijn, 2011). Individuals have to reflect on what is necessary to carry out the task or perform in such situations, as well as their relative competence. During reflective performance, new knowledge, skills and attitudes are developed as a result of both practice and reflection, as well as connecting these new competencies with existing mental models (Illeris, 2004; Posner, Strike, Hewson, & Gertzog, 1982; Strike & Posner, 1985; Vosniadou, 2007). Billett (2001) refers to this process as 'knowing'. Eraut (2003) provides a different perspective, stating that when individuals have time to think, actions are planned and more deliberate, as well as considerate of conscious reflection and monitoring. As a result, integration of individuals' competence with the situation is greater and contributes to greater individual competence development.

In the case of improving workplace gender equity, individuals may encounter workplace situations in which competence is not automated or which do not allow for automation. For example, a new employee may be in a meeting with their manager and other colleagues where they are feeling uncertain and/or uncomfortable about the way in which certain people in the meeting are being addressed. Following their manager's negative and judgemental behaviour does not appear the right thing to do. The employee will need to reflect on the situation and on their existing gender equity-related knowledge, skills and attitudes that might assist in or suit the situation. The employee may try to role model appropriate language and behaviour, ask pertinent questions of their manager to understand meeting etiquette in the new organisation, or attempt to intervene on behalf of colleagues. None of these actions are automatic, with the employee needing to constantly reflect on how to behave in the situation. In this case, existing competence is transferred in the situation by means of reflection.

Reflection is therefore central to reflective performance and is conceptualised in this study as a bridge between an individual's social and cultural contexts, their own competence levels and their abilities to solve problems and act/perform in different situations (Mezirow, 1991). It may be an integral part of taking action, or take place as a critique of the process afterwards. 'Doing' should become 'trying', necessitating reflection aimed at dealing with new, ambiguous or challenging situations (Baartman & de Bruijn, 2011; Raelin, 2000). This research report draws on Mezirow's (1991) transformative learning theory to explore how learners interpret experience to construct meaning, and how critical reflectiveness promotes deeper levels of awareness in students about the self and the contextual social world (Seel, 2012).

3.9 TRANSFORMATIVE PERFORMANCE

Transformative performance occurs when existing competence is deemed by an individual as inadequate in a situation and existing mental models or perspectives are therefore changed or transformed (Baartman & de Bruijn, 2011; Eraut, 1994). The process of change is driven by individuals' critical and reflective capacities (Freire, 2005; Mezirow, 1991; Van Woerkom, 2004). Critical reflection in such a situation challenges individuals' own premises and presuppositions, as well as the situation's context, both historical and social, and potential situational outcomes.

In the case of improving workplace gender equity, an individual may be confronted with a situation that is both unexpected and not previously encountered.

For example, a newly promoted Human Resources Manager, undertaking a recruitment campaign at the direction of their superior, may be directly confronted by potential candidates who believe that the selection process is biased, discriminatory and pre-determined in outcome. The Human Resources Manager is then challenged to address the concerns of the candidates, protect the credibility of the organisation and its processes, as well as resolve the situation with their superior. To achieve these outcomes, the Human Resource manager needs to critically reflect on their own behaviours and attitudes during the recruitment campaign and how these may have contributed to the candidates' perceptions.

The Human Resource manager also needs to critically reflect on the way in which the campaign had been devised and implemented and how the process reflects the cultural priorities and values of the organisation. Such critical reflection may expose prejudices of both the Human Resources Manager and the organisation that need to be transformed.

The learning and competence development inherent in this case is described by Illeris (2004) in two ways. First, it is characterised as 'accommodation', where new information cannot be just connected to existing mental models, but requires such existing mental models to be broken down to fit with the new information. Second, it is characterised as 'expansive learning', where cognitive, social and emotional change takes place in an individual. Such learning is comparable to Mezirow's (1991) process of critical self-reflection, where it is not just what an individual does that is transformed but also who they are.

Consequently, it can be compared to the process of identity formation, being not just an accumulation or development of competence, but also a process of becoming (Colley, James, Tedder, & Diment, 2003; Hodkinson, Biesta, & James, 2008).

This research report draws on a number of theories to explore how learners can be challenged in a teaching environment to question and critically reflect on their own gender equity-related competence, their current contexts and past experiences of discriminatory situations to not only increase their own transformative gender-equity related competence and identification, but also their capacity to influence change in others.

Mezirow's (1991) Transformative Learning Theory to explore how learners interpret experience to construct meaning and Montano and Kasprzyk's (2008) Integrated Behaviour Model to explore changing learners' behavioural intentions are both relevant learning theories for bringing about transformative change in individuals' mindsets, behaviours and attitudes. So too is Bandura's (1976, 1986) Theory of Social Cognition. Other relevant theories include Freire's (2005) concept of critical pedagogy, which facilitates critical awareness and Cole's (2009) Intersectionality Framework, which facilitates analysis of gender inequity in social structures.

*...Learners can be challenged in a teaching environment to **question and critically reflect** on their own gender equity-related competence, their current contexts and past experiences of discriminatory situations to not only increase their own transformative gender-equity related competence and identification, but also **their capacity to influence change in others.***

3.10 INTEGRATING THE MODEL

Aligning the Integrated Competence Model with learning theories for change presents a framework for increasing gender equity-related competence.

This is visualised below:

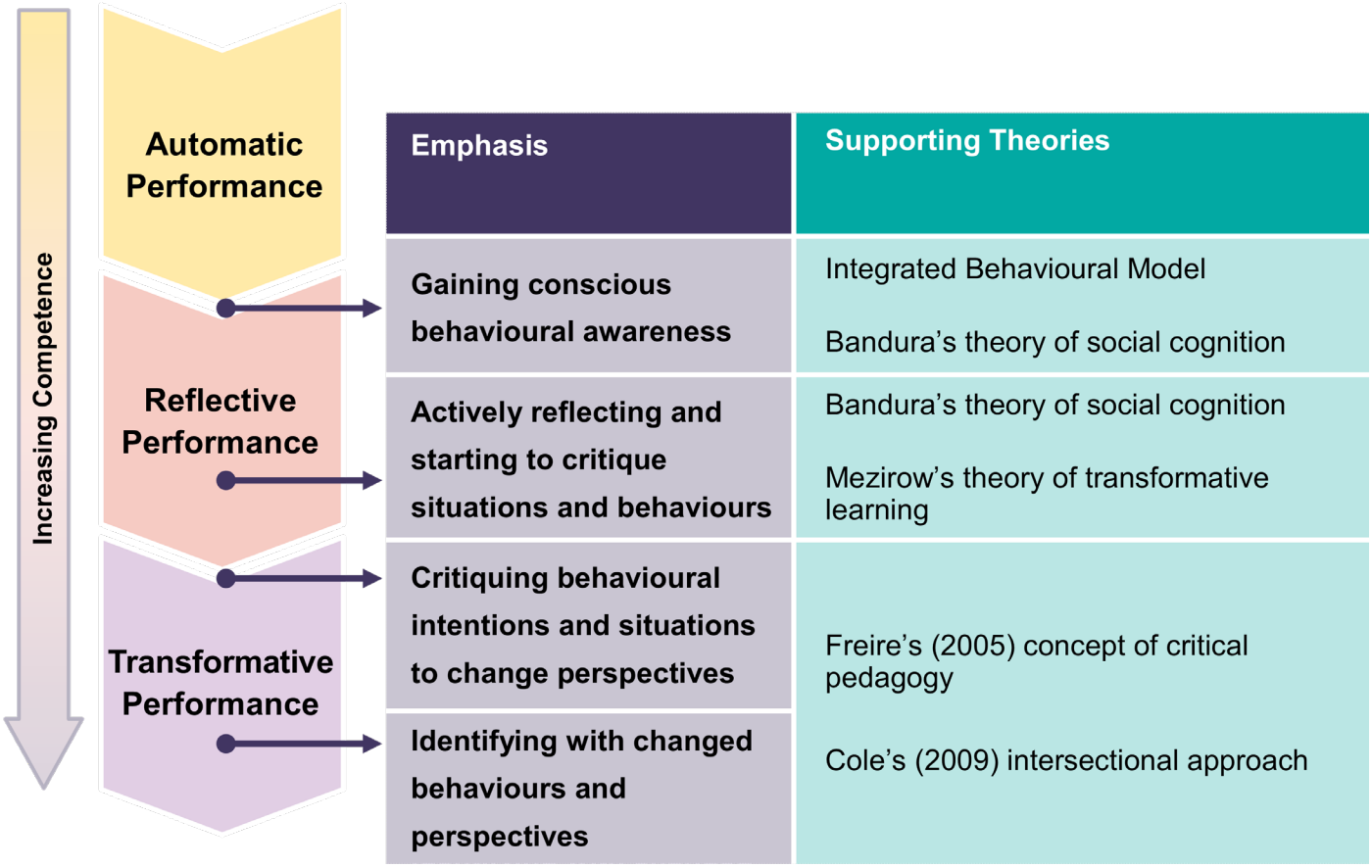

Figure 4: Alignment of education and/or learning theories with an Integrated Competence Model

An Integrated Competence Model allows for a way to frame an understanding of the principles of competence development, as well as inform a suite of teaching practices that can be cross-referenced to their impact on gender equity-related competence improvement.

3.11 UNDERSTANDING THE SOCIO-ECOLOGICAL CONTEXT

Another way in which to consider the educational work underpinning teaching and learning of the gender equity units of competency is from a systems perspective. Using a systems lens to understand how individuals' gender-related competence can increase and/or change and develop means that the environments in which individuals perform are critically important to consider (Ford, 1987). Bronfenbrenner (1977, 1979), a systems theorist, considers an individual's ecological environment "as a nested arrangement of structures, each contained within the next" (1977, p. 514). These structures were termed as a microsystem, a mesosystem, an exosystem and a macro system.

The microsystem is described as an individual's immediate surroundings or relationships, with mesosystem describing relations between different microsystems. At the mesosystem level, for example, the inter-relationships between different family and work influences that an individual may be experiencing with regard to gender-related issues and attitudes may be examined. The exosystem includes non-specific formal and informal structures "which do not themselves contain the [individual] but impinge upon or encompass the immediate settings in which that person is found, and thereby influence, delimit, or even determine what goes on there" (Bronfenbrenner, 1977. P. 515). Such influences at the exosystem level may include mass and social media or local community perspectives. Finally, the macro system "refers to the overarching institutional patterns of the culture or subculture, such as the economic, social, educational, legal, and political systems, of which micro, meso and exosystems are concrete manifestations" (Bronfenbrenner, 1977, p. 515). Such influences at this level may include government policy and current social and economic conditions and trends.

Vondracek, Lerner and Schulenberg (1986) (also systems theorists) emphasised the complexity of the environmental influences of individual development and suggested that the Bronfenbrenner model "can lead to a more orderly, systematic, and comprehensive understanding of the context as it impacts [individual competence] development" (p. 65). Their life-span developmental approach to individual development builds from Bronfenbrenner's model and puts developmental contextualism at its core.

This attempts "to account for the manner in which the environment differentially inhibits or encourages an individual's capacities" to develop, in this case, gender equity-related competence (Patton & McMahon, 2006, p. 89). The model frames eight contextual variables including job opportunities, social policies, economic conditions and policies, and sociocultural contexts. These have interconnections between individuals and their family of origin, work communities, peers and related networks (Lerner, 1984). Similar to Bronfenbrenner's (1977, 1979) model, developmental contextualism assumes that individual development is a function of contextual variables, the individual themselves, the relationships between the individual and their familial, work and social networks, as well as the interactions between all of these elements combined.

This core assumption can be considered from several perspectives. First, interconnections between system elements are dynamic, in that individuals are influenced by the contexts in which they exist and the relationships that they have, which in turn change as individuals change. The framework then includes a temporal component, as both individuals and their environments change over time. This dynamic notion is also a key feature in our competence model. Second, the linkages between the elements are embedded in that they are operating at multiple levels (e.g. biological, psychological, social). Change in any level can engender change in another level. For example, a change in an aspect of biology (e.g. ill health) may contribute to a change at the psychological level (e.g. self-esteem) (Patton & McMahon, 2006). Third, an individual's gender equity-related competence development, in this case, is both a function of individual agency and social constraint (Côté & Levine, 2016; Porfeli & Vondracek, 2008). In other words, an individual's agency to develop their own gender equity-related competence is bound or allowed only to the extent of the contexts in which they are operating at a particular point in time (Evans, 2002, 2007; Furlong, Woodman, & Wyn, 2011; Heinz, 2009).

Bronfenbrenner's (1977, 1979) and Vondracek, Lerner and Schulenberg's (1986) theories and models also allow the development and teaching of educational practices underpinning the specific gender units of competency to be viewed as a system. This perspective is as important to consider as is the individual's competence development, and provides an additional way in which to conceive design of the specific units of gender equity competency and related teaching resources and materials. The effect of the units and their accompanying educational practices are centred in an environmental system influenced by the underlying relevance of the CBT model and the associated education and learning theories. The individual learners, including their existing competence levels, which are systems in and of themselves, and their propensity to increase their own gender equity-related competence also need to be considered as part of the environment in which the units will be deployed. Further, the learning context, including the teachers' capabilities and styles and the teaching mode (i.e. online, face-to-face instruction) are influential factors. Finally, the system includes the broader macro-environment, comprising elements such as government policy, organisational cultures and policies, social trends and movements and mass media regarding gender equity.

*...Individuals are **influenced by the contexts in which they exist** and the relationships that they have, which in turn **change as individuals change.***

4. PRACTICE PERSPECTIVES

4.1 TEACHING PRACTICES TO ACHIEVE BEHAVIOURAL CHANGE

There is increasing recognition that teaching practices, education programs and interventions aimed at changing behaviour should draw on theories of behaviour and behavioural change in their development (Hardeman, Griffin, Johnston, Kinmonth, & Wareham, 2000). Advocates of doing so claim improved education and intervention effectiveness occurs when target behaviours are understood within a theoretical system or frame that allows explicitly for causal determinants of such behaviour to be defined, compartmentalised, evidenced and evaluated (Michie et al., 2018; Michie, Johnston, Francis, Hardeman, & Eccles, 2008; Michie, van Stralen, & West, 2011). Behavioural determinants can be identified from theories of behaviour that attempt to explain and predict when, why and how behaviour change occurs, as well as propose both mechanisms of action and moderators of change along various pathways (Davis, Campbell, Hildon, Hobbs, & Michie, 2015).

Given gender discriminatory behaviours appear triggered by a broad range of social, personal and environmental factors, including individuals' unconscious and conscious stereotyping, prejudice, habits and beliefs (Bohnet, 2016), a comprehensive theoretical model that considers such a range of factors appears the most appropriate to effect gender-related behavioural change. Montano and Kasprzyk's (2008) IBM is such a model. The model is based predominantly on the theory of reasoned action/planned behaviour [TRA/TPB], and also includes Triandis' (1977, 1980) habit concept and Bandura's (1986, 1997) self-efficacy concept.

At its core, the IBM is concerned with the prediction of behavioural intentions. The model assumes that if individuals' behavioural intentions are strong, it is likely and proven that targeted behaviours will be adopted and/or behavioural change will occur (Webb & Sheeran, 2006). The model is depicted below.

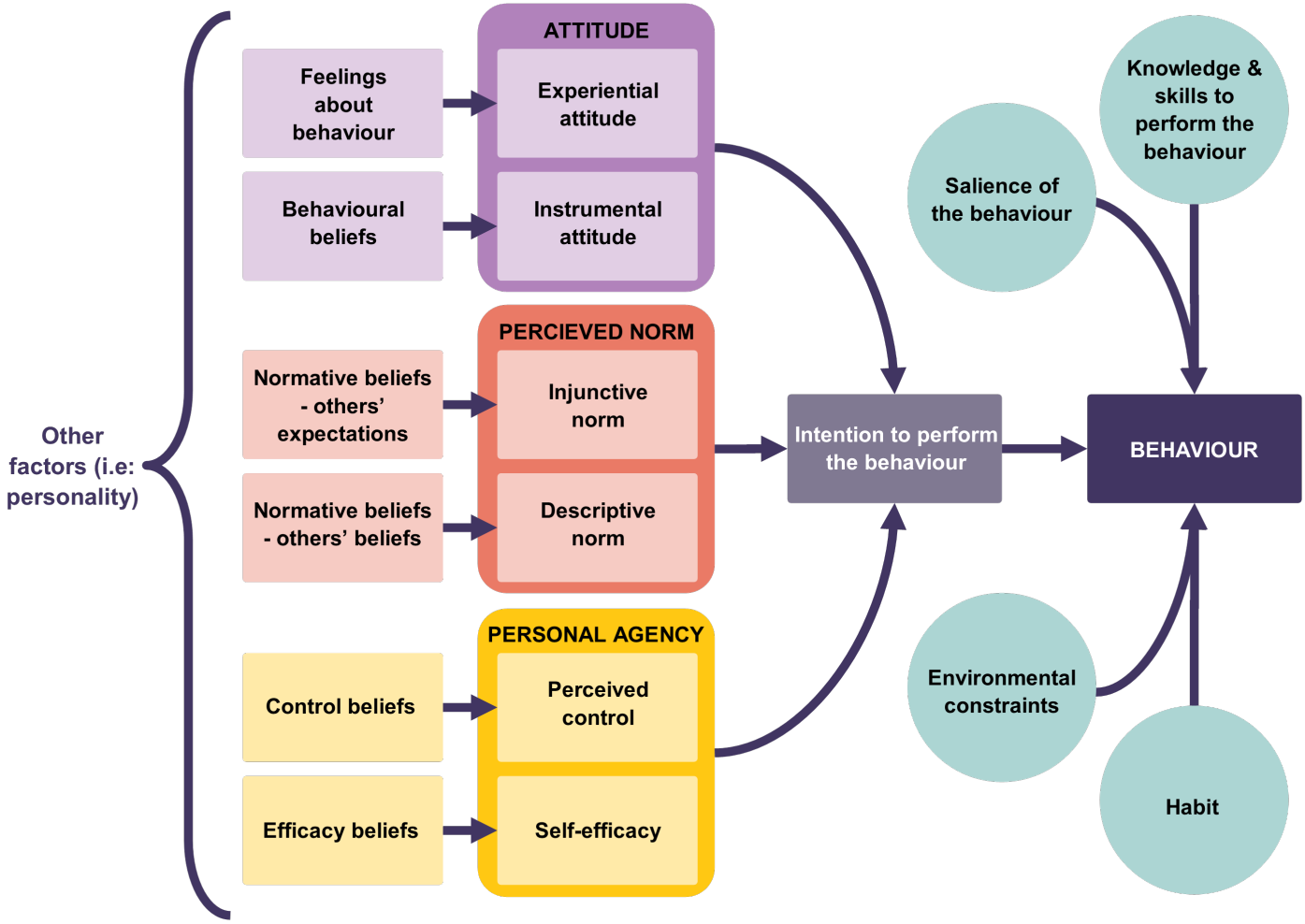

Figure 5: Integrated Behavioural Model (adapted from Montano & Kasprzyk, 2008, p. 77)

The model adopts the same theoretical premise as TRA/TPB; that is, that direct determinants of individuals' behavioural intentions comprise (i) attitudes towards targeted behaviours, (ii) social pressures and influences experienced by individuals regarding targeted behaviours, and (iii) perceived personal agency to adopt and/or change behaviour.

First, as shown in **Figure 5**, an individual's attitude constitutes both emotional responses to the idea of performing targeted behaviours (experiential attitude; Fishbein, 2007), as well as cognitive evaluations of the outcomes if targeted behaviours are performed. Thus, if individuals feel positively about targeted behaviours and foresee positive outcomes resulting from performing targeted behaviours, it is likely they will have positive attitudes to adopting or changing certain behaviours. For example, in an organisation, an individual may witness colleagues displaying gender-appropriate behaviours and receiving positive recognition from superiors for such behaviour.

Figure 6 below shows how, in the context of IBM, these observations may motivate the individual to change their attitude towards gender equity and thus their intentions to behave differently.

As a further example, a newly employed female employee participates in a meeting where her views are asked for, listened to and respected. She has not experienced such regard before and is consciously pleased by her colleagues' and superiors' behaviours. She wants to make sure that she, in turn, treats others as she has been treated. Her positive experience and feelings about the displayed behaviours motivate her to analyse her own gender-related attitudes and behaviours with the intent to ensure her future behaviour in different contexts gives others the same respect that she has received.

Second, also shown in **Figure 6**, a perceived norm reflects the social pressures individuals may feel to perform or not perform certain behaviours (injunctive norm), as well as individuals' own perceptions about others' expectations of them (Fishbein, 2007; Triandis, 1980). Positive experiences and perceptions of support from others towards targeted behaviours will likely strengthen behavioural intention to adopt or change certain behaviours.

For example, an individual newly employed by an organisation has a discriminatory bias towards respecting female managers. This bias is borne from past perceived negative experiences with certain female superiors. The individual is assigned a female manager and is struggling to both respect her and undertake assigned tasks appropriately. Yet, the culture of the organisation is such that the new employee is not being socially accepted by colleagues because of this behaviour and is challenged several times by peers to change their attitude. The female manager notices the team dynamics and approaches the new employee to offer support. Through non-judgemental mentoring, the female manager helps the new employee to understand and respect both her expectations and those of the organisation regarding individual and team performance. The experience provides the new employee with a different perspective of female managers — a change in their perceived norm — and motivates the individual to change their attitude and outlook as a result.

Figure 6: Example of the process of attitudinal change through observation

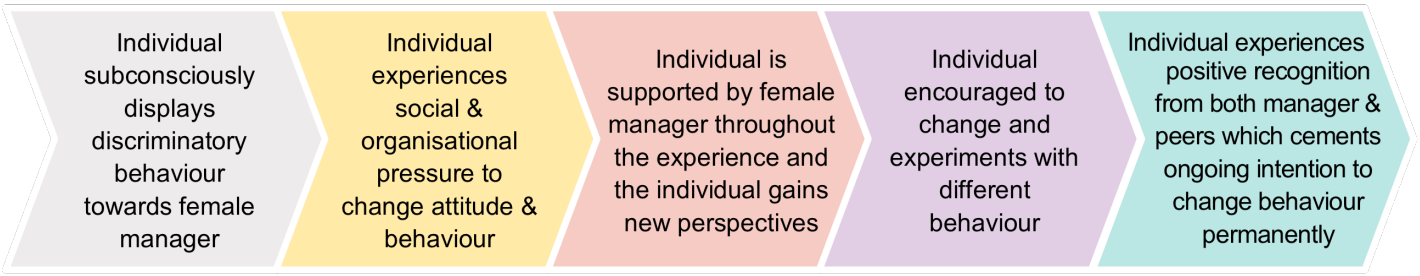

Figure 7: Example of the process of attitudinal change through social and organisational pressure

Figure 7 shows how in the context of IBM this experience may motivate change in intentions to behave differently on a permanent basis.

Last, personal agency consists of two aspects. Firstly, self-efficacy, which represents an individual's own confidence levels in regards to performing targeted behaviours in particular contexts. Secondly, personal agency also comprises an individual's own perceptions of the degrees to which various environmental or contextual factors make it easy or difficult to adopt or change certain behaviours (Ajzen, 2002; Bandura, 1997; Fishbein, 2007). For example, an individual may want to change their gender-related behaviour but may lack confidence or not know how to do so in different contexts. A colleague offers to mentor them and privately provides guidance and encouragement to the individual to help them make changes in their disposition and behaviour. As a result, the individual's feelings towards and perceptions about gender equity become more positive, which in turn, further cement their intentions to behave differently in a broader range of contexts.

As a further example, an individual in a male-dominated organisational culture may perceive that behaving in particular ways towards females in team situations will invite ridicule or intimidation by male colleagues. The individual perceives that the organisational context acts as a barrier to behavioural change, despite the individual's personal intentions regarding gender equity-related behaviour.

Figure 8 below shows how, in the context of IBM, experimentation may inspire an individual to change their perceptions of control, which in turn, changes their intentions to behave differently on a permanent basis.

The IBM (Montano & Kasprzyk, 2008) reinforces the importance of how attitudinal belief, personal agency and perception change can lead to changes in intentions and behaviours. This means that despite an individuals' strong intentions to adopt or change certain behaviours, this may not occur due to several factors (Ajzen and Dasgupta, 2015). These include individuals simply forgetting to enact certain behaviours (Brandimante, Einstein, & McDaniel, 1996) or allowing the passage of time to erode behavioural intent (Albarracin, Johnson, Fishbein, & Muellerleile, 2001; Sheeran & Orbell, 1998). Montano and Kasprzyk (2008) further note certain factors outside of intent that impact the adoption of or change in individuals' behaviour including environmental constraints, the salience of the behaviour to the individual, and actual and/or perceived individual knowledge and skills to perform certain behaviours (Ajzen, 1991, 2005; Becker, 1974; Jaccard, Dodge, & Dittus, 2002; Stodolska, 2005; Triandis, 1980). All of these factors need to be considered when designing effective behavioural change education programs and interventions.

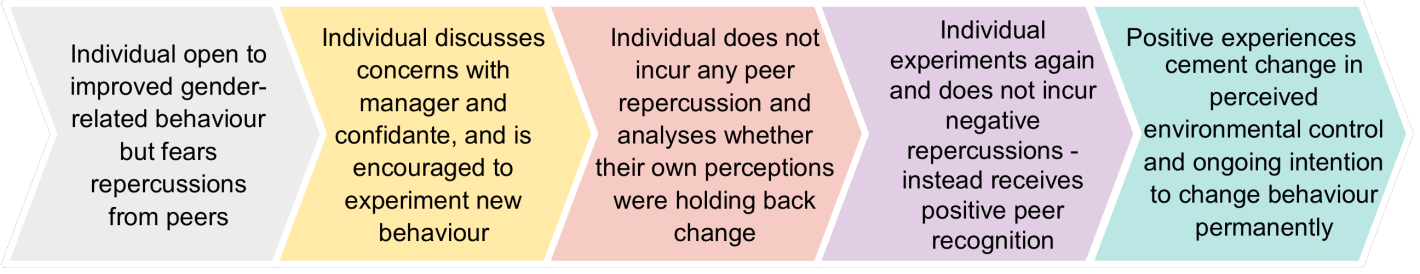

Figure 8: Example of the process of attitudinal change through experimentation and positive recognition

Habits can also act as direct mediators between strong behavioural intentions and adopting or changing certain behaviours (Montano & Kasprzyk, 2008; Triandis, 1980). The key for educators and participants in the specified units of gender equity is to recognise and be aware of desired gender-appropriate habitual behaviour, as opposed to inappropriate gender-related habits that need to be transformed. On one hand, automatic, subconscious or habitual behaviour can be beneficial. Individuals displaying gender-appropriate habits should be recognised and held up as role models to encourage others to develop automatic positive gender-related responses, competence and action in different organisational situations. On the other hand, habits or unconscious competence can include prejudices and bias that perpetuate gender inequity. To effect change, using the proposed competence model in this report, a transformation of individuals' existing mental models and perspectives would need to take place for such individuals to develop new gender-appropriate attitudes and behaviours.

4.2 TEACHING TO INFLUENCE BEHAVIOUR AND PRACTICE — BANDURA'S THEORY OF SOCIAL COGNITION

Bandura's learning theories emphasise that there are dominant factors which influence learning, and that behaviours are often learned by observing others (Bandura, 1976). In his work involving observational learning, Bandura concluded that modelling is an important aspect when considering how people acquire new behaviours. These new behaviours are acknowledged and accepted, especially if the model is noteworthy (Bandura, 1962). Additionally, by imitation of the model, behaviours which are then rewarded have a greater tendency to be reinforced and strengthened. These rewards result in the behaviour being repeated. Further, if an individual observes others being rewarded for behaviours, it tends to strengthen the chance of the behaviours being repeated (Bandura, 1976). These behaviours are consolidated when the concurrent values, beliefs and attitudes of the 'model' are absorbed by the individual. This internal process strengthens behaviour as the individual continues to identify with the model, in preference over others.

As an example, individuals who are presented with models who articulate gender-neutral language, which then translates into behaviour that eliminates implicit gender biases, are more likely to imitate this language and these behaviours.

Bandura's social learning theory, which later evolved into his social cognitive theory, explores both what we do and how we think and argues that these two processes intersect (Bandura, 1976, 1986). This implies that human beings are active participants in determining their own behaviours. His views rest on the argument that human beings are aware of the relationship between their behaviours and their consequences (Bandura, 1976, 1986). Consequently, learning through observation (experienced, for example, visually) is possible because there are both mental (cognitive) and behavioural processes at work. The cognitive factors mediate or intervene to produce certain behaviours. As such, human beings are not passive recipients of behaviour and do not imitate these automatically. Some thought is required before this happens. This process is referred to as a mediational process (Bandura, 1986).

There are four mediational processes proposed by Bandura:

- **Attention** - Human beings notice many behaviours on a daily basis, but their attention is only caught by some. There must be something noteworthy about a particular behaviour for it to grab attention and to, consequently, influence whether it will be imitated.
- **Retention** - The target behaviour should be remembered in order for it to encourage imitation. The social learning of behaviour is not always immediate; therefore, remembering the behaviour assists with its being reproduced later.
- **Reproduction** - The imitation of behaviour should be within an individual's scope and ability – if a behaviour is outside their ability, it is less likely to be noticed, or desired to be reproduced.
- **Motivation** - When a human being observes a target behaviour, it is evaluated in terms of rewards and punishment. The behaviour is more likely to be replicated or reproduced if the perceived rewards outweigh potential punishments. Rewards also need to be important to the observer, or the behaviour will not be imitated.

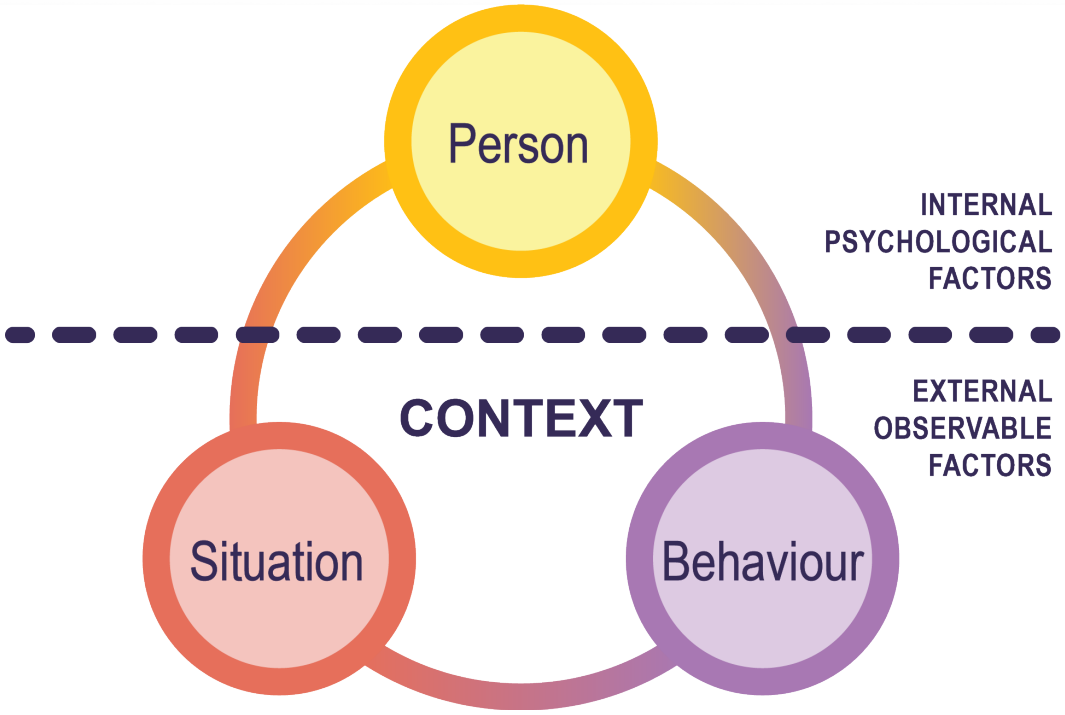

Figure 9: Bandura's model of reciprocal determinism

Therefore, the observation of a noteworthy and easily replicable behaviour is likely to be imitated if it is encouraged by internal motivation. Furthermore, modelled behaviours that challenge culturally-held gender stereotypes are likely to be replicated and retained if these behaviours produce intrinsic and extrinsic rewards.

What this means is that an individual's behaviour cannot be solely attributed to internal processes. They are also not entirely shaped by external forces. Human functioning is a product of all these factors. Bandura's (1986) model of triadic reciprocal determinism shows how behaviour, environmental factors and inner forces interact to influence the reproduction of behaviour.

Bandura (1986) notes that an individual's nature is unique, with each possessing the capability to direct their behaviour. Individuals have control over their thoughts, emotions and actions. This ability to regulate behaviour is an important factor regarding their interaction with others.

What Bandura's theories offers as a framework for teaching and learning about gender equity is the view that an individual's behaviour is likely to be repeated if:

- The behaviour rewards them internally
- It aligns with their developing value system
- These behaviours are supported by contextual factors
- A model of these behaviours is acceptable and noteworthy

Consequently, all behaviours taught within the span and content of a program are only likely to be repeated, imitated and replicated if they prove to be intrinsically rewarding, align with the individual's own values, are modelled appropriately and offer a degree of reward, either physically or psychologically.

Bandura's model is therefore triadic, as it references the individual, the context in which they operate and the target behaviour. The triadic view of reciprocal determinism veers away from the view that learners are passive recipients of their environments, to be shaped by these environmental influences. Individual learning of behaviour should be both active and interactive. It is a reaction to learned associations, personal characteristics, innate thoughts and feelings, reinforcement and behaviour. Behaviour, one element in the triad, is the product of external stimuli (the environment) and internal cognitive processes. The environment could be viewed literally, intellectually and psychologically, and could include other learners, facilitators and teachers.

In the context of learning and teaching, this means the individual learner/student actively encounters and interacts with information, skill and knowledge relating to a particular belief and value system. These interplay with other external factors, percolating into inherent beliefs, new thinking and revelatory processes. The context confronting the student could be both physical and theoretical, as material encountered within the learning context challenges thinking, reconstructing established ideas, and reformulating processes. This interplay then yields the target behaviour, which consistently responds to teaching and learning input, valuable modelling and contextual elements.

Extending his theoretical underpinnings of these social and cognitive intersections, Bandura's view of the 'agentic' personality empowers the individual through an exercising of personal influence. Possessing these capabilities allows human beings to make decisions independently, raising them from merely being acted upon by internal and external mechanisms. Consequently, humans are agents of experience rather than simply submitting to experiences (Bandura, 2001). This means that individuals intentionally act whereby behaviour influences thinking, and thinking influences behaviour, cyclically. These determinative cycles are intentional and fuelled by learning and conscious interaction with external ideas. This is what Bandura terms "planful proaction", an intentional recruiting of thoughts to feed action, and vice versa.

As such, it is necessary for learning within this context to be both interactive within a real context and reflective of one's own position and actions. Learners should reflect consciously, through mechanisms like journaling, on whether there are links between their action and their thinking, deliberating on how the two feed each other.

4.3 TEACHING TO TRANSFORM PERSPECTIVES AND ENCOURAGE REFLECTION

Mezirow's learning theory and the education theory of Freire use the concepts of critical reflectiveness and critical awareness to frame educational practice and promote deeper levels of awareness in students about the self and the contextual social world (Seel, 2012). The outcomes are perspective change and enhanced competence. Mezirow's (1997) Transformative Learning Theory focuses upon critical reflectiveness as a key tool in this process; Freire supplements this with critical consciousness to further build students' capacity for effective social action.

Mezirow's theory grew out of his work with adult women in higher education and research into how they constructed meaningful understandings out of new learning experiences. Meaningful understanding increases competence and arises when new learning is considered in the light of previously-held personal knowledge and frames of reference. As a process, transformative learning is growth in deep knowledge; 'deep knowledge' is characterised by increased knowledge of a subject or concept, plus recognition of the meanings and implications of this new knowledge and of its meaningfulness to the learner (Seel, 2012). This is a reflective process which can stimulate change in the individual's meaning perspectives (assumptions and expectations) and personal identity (Kitchenham, 2008; Mezirow, 1991; Seel, 2013).

Nerstrom (2014) summarises the transformative learning experience as a four-step cyclical process whereby: (i) the experiences individuals encounter in their lives cause (ii) assumptions to be made about their meanings which can be (iii) challenged by new and different learning experiences that provoke reflection by the individual and (iv) produce new understandings (or meaning perspectives) (v). This is illustrated below:

EXPERIENCE

Experience is everything that has occurred in our lifetime. It is the impetus of our learning and belief patterns. Experience stems from our environment and interactions with others, from which learning (knowledge, skills, attitudes and insights) occurs

ASSUMPTIONS

From experience, we form, receive and construct assumptions that become our values and beliefs. They are the lens through which we view the world

CHALLENGE PERSPECTIVES

New experiences, both cognitive and affective, combined with reflection, may lead us to challenge our deeply held assumptions and consider a new perspective

TRANSFORMATIVE LEARNING

Adopting and acting upon a new perspective, we view ourselves and others through a more encompassing lens. Transformative learning becomes a new experience leading to openness for it to occur again.

Figure 10: Nerstrom Transformative Learning Model (Nerstrom, 2014, p. 328)

Mezirow (2000) proposed there are four types of learning delineated by particular thinking habits and frames of reference employed by the learner when undertaking a problem-solving task. These produce different degrees of change to learner competency. The simplest is an instrumental learning type that utilises only the learner's existing frames of reference and meaning perspectives. A second learning type sees the learner applying new frames of reference, a third incorporates new thinking styles and therefore change to previous habits of mind (somewhat transformative), and the fourth involves change in points of view held by the learner (the most transformative). While these four learning types are discrete, they also represent points on a continuum of transformational learning outcomes, as shown below in **Figure 11**.

This diagram indicates that the most transformative learning types in Mezirow's typology require learner reflection, and communication about that reflectiveness, as essential components.
The concept of critical reflection is therefore fundamental to transformative learning theory and is defined as "the ongoing process of consciously or unconsciously reviewing and evaluating assumptions to clarify the meaning of experiences both individually and collectively" (Nerstrom, 2014, p. 327).

Critical reflection contributes to building an awareness about ourselves and our social context, and is the principal tool in the achievement of perspective transformation, which is

> *"…the emancipatory process of becoming critically aware of how and why the structure of psycho-cultural assumptions has come to constrain the way we see ourselves and our relationships, [and then] reconstituting this structure to permit a more inclusive and discriminating integration of experience and acting upon these new understandings"*
> (Mezirow, 1981, p. 6).

This means that growth in critical reflection and critical awareness skills are crucial elements in building competence. The process of how transformational learning occurs is described in Mezirow's model of ten stages in **Table 2**, although the sequence can vary. All ten stages lead towards, and produce, perspective transformation in the individual.

Figure 11: Representation of Mezirow's (2000) four types of learning, reflecting the revised theory of Transformative Learning (Kitchenham, 2008, p. 120)

MEZIROW'S STAGES OF TRANSFORMATIVE LEARNING (MEZIROW, 1995, P. 50)
1. A disorienting dilemma (a life event that triggers the learning journey)
2. Self-examination with feelings of guilt or shame
3. A critical assessment of assumptions
4. Recognition that one's discontent and process of transformation are shared and that others have negotiated a similar change
5. Exploration of options for new roles, relationships, and actions
6. Planning of a course of action
7. Acquisition of knowledge and skills for implementing one's plans
8. Provisionally trying out new roles
9. Building of competence and self-confidence in new roles and relationships
10. A reintegration into one's life on the basis of conditions dictated by one's new perspective

Table 2: Mezirow's stages of transformative learning

Stages 2, 3 and 4 make plain the significant contribution of personal and critical self-reflection to this transformative process. The dynamics of Mezirow's understanding of the relationship between critical self-reflection and perspective transformation is illustrated in **Figure 12** on the following page. This diagram shows the different transformational outcomes achievable with three types of reflection: (i) that which considers new subject content using only the learner's existing frames of meaning/ understandings, (ii) that which recognises alternative frames of meaning/understandings, and (iii) that which recognises and embraces deep perceptual shifts in ways of thinking about subject content.

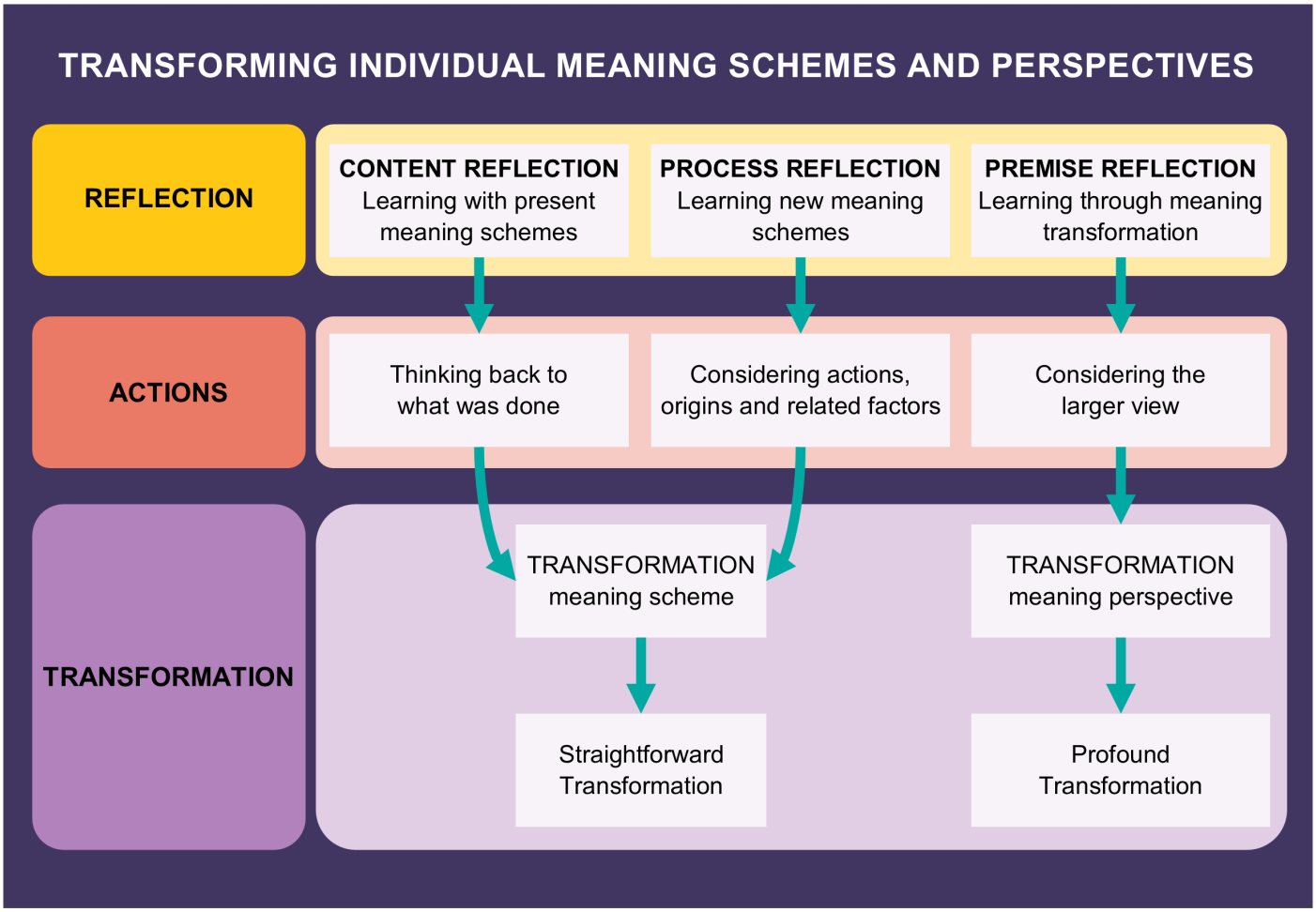

Figure 12: Representation of the three types of reflection, their related actions, transformations and depths of change (Mezirow, 1995, cited in Kitchenham, 2008, p. 115)

It can be noted that Mezirow's learning types align with the previously described Baartman and de Bruijn (2011) framework for integration of learning processes, which ties learning outcomes to different types of competency. This means that the concept of transformative learning is usable in an educational context, such as one designed to increase gender equity competence.

Transformative Learning Theory is generally applied to adult education. Once experienced, the outcomes of transformative learning usually endure within the individual, as they are unlikely to resurrect former frames of mind/beliefs and tend also to be willing to engage with further transformational learning experiences (Nerstrom, 2014). Students who experience perspective transformation may additionally develop increased personal agency; that is, a capacity to take action towards implementing change, often in their social roles or social context (Miles & Court, 2013; Seel, 2012; The Transformative Learning Centre, 2016).

This means that the aim of increased learner gender equity-related competence can be achieved using Mezirow's transformative learning model to frame gender equity-related teaching and learning within the specified units of competency.

Mezirow's theory is applied in classroom practice by:

- creating a safe and inviting environment;
- encouraging students to think about their experiences, beliefs, and biases;
- using teaching strategies that promote student engagement and participation;
- posing real-world problems that address societal inequalities; and
- helping students implement action-oriented solutions (Meyers, 2008, p. 220).

An example of a teaching tool to promote reflectivity practice in students is provided in the model below. This process has been used by students in a tertiary education program, and was adapted by dental health educators using the theories of Mezirow (1990) and others (Asadoorian, Schönwetter, & Lavigne, 2011, p. 473).

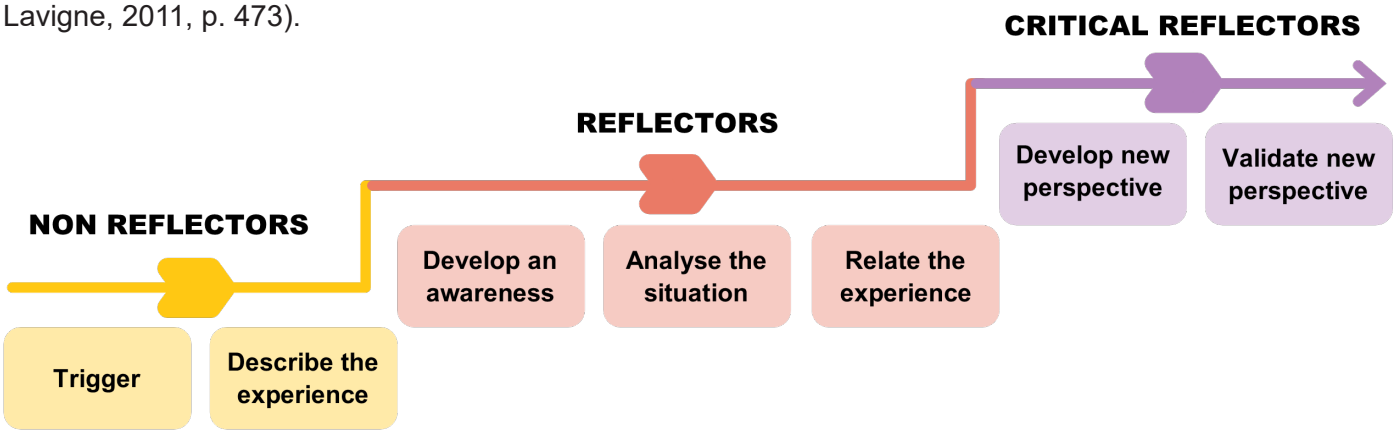

Figure 13: A basic model of reflection (Asadoorian, Schönwetter, & Lavigne, 2011, p. 474)

Mezirow's Theory of Transformative Learning was influenced by Freire's work on critical self-reflection as found within his concept of critical pedagogy (1970) (Kitchenham, 2008). Freire's theory places the greater emphasis, however, upon also building student competence to participate in social action and social change projects. Giroux (2010) summarised the beliefs underlying Freire's concept:

> *"…that all education in the broadest sense was part of a project of freedom, and eminently political because it offered students the conditions for self-reflection, a self-managed life, and particular notions of critical agency"*
>
> (p. 716).

According to Freire, educational pedagogies tend to reflect and reinforce prevailing socio-political values and hierarchies within society, and to prepare students for future roles appropriate to their given social positions and other aspects of identity (which could include gender) (Giroux, 2010). His concept of critical pedagogy challenges educators to disrupt the status quo and transform the purpose of education, from:

> *the reinforcement of dominant ideologies and the preparation of compliant citizens, to: equipping learners to critique those prevailing powerful ideologies and structures and produce reflective, agentic citizens who can shape the world and their own lives*
>
> (Aronowitz, 2009; Giroux, 2010; Rodd & Sanders, 2018).

What this means is that Freire's concept of critical pedagogy is both a framework for educational change and an instrument of social change. It proposes that students can develop the personal and collective agency (power to act) to create social change if they are equipped with two capacities: critical reflectiveness (ability to evaluate assumptions and clarify meanings) and critical consciousness (awareness and understanding of the social and political power structures of their world).

Freire describes six states of growth experienced by students when developing critical consciousness/ awareness, and these involve the simultaneous emergence of critical reflectiveness: i) passivity within the status quo, (ii) identification of social constraints, (iii) awareness and coding of representations and social structures of oppression, (iv) reflection about, and disempowerment of, the representations of oppression, v) development of a shared or community awareness of oppression, and (vi) 'praxis', the process towards the creation of new social practices which are less oppressive (Pérez-Ibáñez, 2018, p. 23).

The concept of critical pedagogy has been implemented within educational practice via classroom strategies of discussion, debate, story-sharing, reflective activities, and deconstruction of the ways the classroom replicates wider social conditions (e.g. Miles & Court, 2013; Giroux, 2011).

4.4 TEACHING TO ENACT AN INTERSECTIONAL APPROACH

Feminist thought identifies education as providing a key opportunity space for gender identity reform:

> *Schooling [including tertiary education], as the first point of entry into the economy, provides one of many opportunities through which men and women can achieve political equality in the public realm…[and] must accommodate the needs of women who wish to take up a place within a competitive economic sphere.*
>
> (Arnot & Dillabough, 1999, p. 169).

Intersectionality is a conceptual tool used to understand how personal identity and social disadvantage are coexistent (Cole, 2009; Crenshaw 1989; Woehrie, 2014). Early forms of intersectionality emerged in the 1980s and 1990s from the work of feminist thinkers and critical race theorists (Cole, 2009), and intersectionality has since been used across the field of feminism studies. It was initially conceived as a way of deepening our understanding of social disadvantage by expanding the number of social factors taken into consideration (Crenshaw, 1989, p. 139). For example, the conjunction of gender and race produce a particular set of disadvantages that are different to those found when just considering gender or race alone (Cole, 2009). The term itself is credited to Kimberle Crenshaw (1989), who proposed it as a framework to analyse the dual disadvantage of being a woman and a person of colour: "they experience double discrimination — the combined effects of practices which discriminate on the basis of race, and on the basis of sex" (Crenshaw, 1989, p. 171). Over the following 20 years further work by feminist theorists extended its use to the analysis of multiple disadvantages, for example those experienced by women of colour who were also working class, and who were thereby impacted by the multi-layered disadvantages of gender, colour and class (Yuval-Davis, 2006).

In recent years the concept has been used to explore the experience of social inclusiveness and exclusiveness more broadly, and in this form it underpins much policy development and institutional practice aimed to produce social change via increased social equity (Australian Human Rights and EOC, 2001; Cole, 2009). This has resulted in many more social factors being used to identify and study disadvantage, for example gender, sexuality, race, class, culture, age and ability (Yuval-Davis, 2006, p. 201/2).

This more contemporary use of intersectionality is based upon the following understandings:

- Each person belongs to numerous social groupings (for example, gender, ableism, class, colour, culture) and many of these groups are inter-dependent with other groupings (Cole, 2009; Else-Quest & Hyde, 2016)
- The social groupings an individual belongs to contribute to their personal identity (Azmitia & Thomas, 2015)
- Social groupings are often characterised by power-based inequalities, both within the groupings and across groupings (Else-Quest & Hyde, 2016)
- Many of the social groupings have negative effects on the health and wellbeing of individuals (for example, aspects of ableism, gender, sexuality, culture, social class groups) (Cole, 2009, p. 170; Skelton, 2019)

The resulting expansion of its meanings and applications has generated renewed debate about the definition of intersectionality (Azmitia & Thomas, 2015; Carbin & Edenheim, 2013; Else-Quest & Hyde, 2016). Skelton (2019, para 2) defines its broadened contemporary scope in this way: "the concept of intersectionality describes the social, economic, and political ways in which identity-based systems of oppression connect, overlap, and influence one another." To other contemporary writers it is a form of critical theory useful for exploring social power-based relations (Else-Quest & Hyde, 2016), or a means of articulating how lives are characterised by the experience of difference (Azmitia & Thomas, 2015).

VicHealth (2017, p. 18), which employs the concept in policy documents on gender inequality, views intersectionality in this context:

> *People's experiences are shaped by the intersection of a number of social conditions, such as gender, ethnicity, ability, sexuality, gender identity, religion, aboriginality, age, education, occupation type and income. Each of these factors, or identity attributes, influences and has an impact on our lives and our experiences. Social structures and systems, and the way they intersect, play a large role in creating social conditions that result in power and privilege or discrimination and oppression, thus shaping the ways in which people experience inequality, disadvantage and violence*
>
> (VicHealth, 2017, p. 18).

All definitional interpretations benefit from the analytical approach afforded by intersectionality, because intersectional analysis has the capacity to take account of the many social, economic and political forces that impact both identity and the course of individual lives (Crenshaw, 1989; Dickinson, 2005; McKenzie, 2011; Woehrie, 2014). It is useful in understanding the complexities of human experience because it:

- identifies the multiple roles and social contexts a person plays/occupies; and
- provides a way of clarifying complex interconnected identity and social forces, which can then be mapped to show the presence of multiple disadvantaging factors impacting personal experience.

This means intersectionality as a framework is effective for exploring the social construction of disadvantage (McKenzie, 2011) and the multifaceted nature of social conflict and social change (Woehrie, 2014). It can make transparent how the interlinked nature of multiple identities increases disadvantage for particular population groupings (Else-Quest & Hyde, 2016; Centre for Women's Global Leadership, 2001).

4.4.1 Applying intersectionality to increase gender equity-related competence

Skelton (2019) notes the following requirements when employing the intersectionality frame within an education program:

> *…intersectionality requires equity-oriented educators to rethink interventions for redressing systemic inequities. Educators are called to re-examine and adjust practices that separate problems into discrete challenges facing specific, mutually exclusive groups and thus requiring distinct solutions… Demonstrating a recognition and appreciation of difference is an important step in creating supportive and inclusive learning environments… As equity-focused educators, we must recognize and honor our own multiple identities and the multiple identities of our students, families, and co-workers.*
>
> (Skelton, 2019, para 11-12)

This description shows us that intersectionality as a framework for education projects can usefully incorporate key elements of Mezirow's Transformational Learning Theory and Freire's concept of critical pedagogy. Their concepts of critical reflectiveness and critical awareness are inherent in the intersectional analysis task of identifying complex social and political factors that impact instances of social inequity and disadvantage. Such a framework means students gain both theoretical knowledge about the complex nature of the intersections of gender identity, social relations and structural context, and also an increase in empathetic understandings of others and self via the reflective process required to explore and understand these complex intersections of human experience (Sharma, 2019; Warshaw, 1997).

Both critical reflectiveness and critical awareness skills underpin the design of many feminist educational programs that use an intersectional approach, such as explorations of gender and identity issues in curricula and classroom teaching practice, and the design of women's studies and social change programs (Dickinson, 2005; McKenzie, 2011; Woehrie, 2014). Intersectionality is also employed in the design of educational programs for specific professions that require

practitioners skilled at critical reflectiveness and who have experienced perspective transformation, including health professionals (Sharma, 2019; Warshaw, 1997; Welch 2011), social workers, and social reformers/activists (Dickinson, 2005).

Its capacity to deal with complex social and identity factors means the intersectional approach is well matched to the challenge learners who engage with the specified units of competency face in increasing their gender equity-related competence such that they can devise and provide solutions that enable effective workplace change (Bohnet & Klugman, 2017).

The practical application of the intersectional approach to the analysis of gender inequity within social structures involves first recognising the multiplicity of social groupings within the structure (Cole, 2009). The range of social groups explored can be increased if the following three questions (which Cole calls the "layers of intersectional inquiry" (p. 176)) are applied:

- Who is included in the category being studied? (For example, does the sample include all women or only white/educated/English-language competent women).
- Where is gender inequality evident? (This forces analysis across social groups and thereby highlights the group processes that form the basis of inequality).
- What are the similarities across apparent social differences? (Instead of identifying a single difference, this approach will enable structural forms of inequity to be located).

Using these questions in an intersectional approach to gender equity in the workforce helps to locate particular forms of gender-related disadvantage within and across the diverse structures that constitute contemporary workplaces. This diversity includes but is not limited to: industry-type/ groupings, type of internal management and/or power structures, demographic characteristics of employees (by gender and including gender ratios, age, education levels, language competencies, ableness), work tasks, nature and classifications, methods of work, geographic location, and flexibility regarding work location and times, family responsibilities, religious observances, health and welfare issues.

In summary, these perspectives offer ways of seeing that may inform the overall design of gender equity units of competency and may also shape the teaching, learning and assessment practices used to achieve outcomes. In the next section, strategies to guide practice are outlined.

*Demonstrating a **recognition and appreciation of difference** is an important step in creating **supportive and inclusive** learning environments.*

5. PRACTICE STRATEGIES

This section presents specific approaches to guide teaching and assessment practice. Gender equity work may often spark resistance and a sense of challenge for learners. Considering the pedagogy of 'discomfort' as part of this work may helpfully prepare educators to work productively with this. Experiences, recounted through narrative, work powerfully in connecting the 'everyday' worlds of learners to the more abstract and universal ideas and rights inherent in gender equity. A practice challenge in this work will be the diverse learners who may select these units, from those without professional experience to those with much experience. In this context, a problem-based learning model may be a fruitful approach to present 'real world', authentic and unfamiliar cases to learners across the spectrum of experience and allow for the application of new knowledge and skills to workplace contexts. This approach is explained below. Addressing gender equity through online learning is also discussed. Additionally, this section will highligh specific practice strategies that are well situated to achieve the three levels of competence identified in the integrated competence model proposed in the research. The strategies are presented to spark ideas for educators rather than proposing that one particular approach is directly related to one dimension of competence development. Understandably, they work across the dimensions and relate to more than one. Ultimately, the purpose of their use, that is, the learning outcome intended, would best guide the educator in their selection.

5.1 PEDAGOGIES OF DISCOMFORT

A key aspect that may be encountered by learners and educators in the units of competency is 'discomfort' as perspectives are questioned, challenged and transformed. Educational courses designed to explore and increase awareness of inequality and emotional aspects of course materials (e.g. within readings, case studies, audio-visual materials) can trigger in participants a range of emotional responses. These include rejection of new ways of interpreting or understanding, fear, anger, defensiveness and grief (Boler, 2004; Boler & Zembylas, 2003; Stenberg, 2011). A pedagogical intention to stimulate and build capacity for critical enquiry may appear difficult to achieve, or even to be derailed.

Stenberg (2011) advises teachers to encourage students to dwell within and explore more deeply these responses as a classroom activity, with the intention of locating the meanings behind the attachment of emotion to the particular issue. This reflexive approach builds student awareness of their existing frames of thinking and introduces the opportunity to consider different frames (Stenberg, 2011). Boler (2004, p. xv) notes however that this approach does not of necessity "[require] confession, that we must all bare our souls"; rather, that the presence of emotion within an educational experience be recognised and included within critical inquiry processes as a component of the transformative learning experience.

Exploring this uncomfortable place where emotion meets critical inquiry is what Boler terms "a pedagogy of discomfort", which "invites us to examine how our modes of seeing have been specifically shaped by the dominant culture of our historical moment" (Boler, 2004, p. xx). Boler's (2004) work echoes Freire's (1970) concepts of critical self-reflection and critical pedagogy (earlier described) in her position that education is a site for transformation of the self and society. Suggesting "we learn emotional rules that help to maintain our society's particular hierarchies of gender, race, and class" (Boler, 2004, p. xvii), Boler interrogates feminist analyses of how emotion has been interpreted along gendered lines and devalued as a form of knowing.

Moving beyond inherited/existing frames of thinking requires both cognitive and emotional work (Boler & Zembylas, 2001) and for both educator and learner to become vulnerable to the contradictions and ambiguities inherent in particular and/or new ways of viewing social equity issues (Boler & Zembylas, 2001). It is this complicated and emotional journey that makes a pedagogy of discomfort uncomfortable:

> *Within this culture of critical thinking (which is not separated from feeling), a central focus is the recognition of the multiple, heterogeneous, and messy realities of power relations as they are enacted and resisted in localities, subverting the comfort offered by the endorsement of particular norm.*
>
> (Boler & Zembylas, 2001, p. 126).

5.2 USING NARRATIVE

A generative approach to teaching and learning in this context is the use of stories or narrative – where participants may use their own stories to explain or understand ideas and values. Self-understanding in humans is commonly achieved using a 'story' format, in which events, relationships and emotional experiences are recalled as having a sequential plot-line and often also one or more 'episodes' in chronological format (Creswell, 2012). These stories, in essence, describe and interpret the social context of the person producing them.

When given the opportunity to talk about their experiences and relationships, people will therefore often produce descriptive responses in the form of a story (Riessmann, 1993, cited in Lawler, 2002). Referred to as personal narratives, these stories are a vehicle for the telling of personal knowledge to others, and they commonly convey the details of the speaker/writer's personal history (Kramp, 2004). It is important to note, however, that a narrative is a complex act of creating a cohesive story from the many experiences in one's life (Chase, 2005), and the narrator is involved in three processes: selection, construction and presentation. They select content from their lives, which is then constructed into a communicable format, and then presented. This tells us that in a sense narrative is an interpretation, a creation made from parts of experience, and is therefore always temporary and potentially subject to change.

Bruner (2001, p. 25) additionally sees the personal narrative as a way of describing "what we call our Self and its doings, reflections, thoughts, and place in the world". The selfhood Bruner describes here is personal identity, and there is wide consensus as to the crucial role narratives play in the formation, evolution and expression of identity (Lawler, 2002; Mishler, 1999; Polkinghorne, 1988). It has been suggested that identity is actually "produced through narrative" (Ricoeur, 1991, cited in Lawler, 2002, p. 249), meaning that narrative is how we contextualise and name identity-related aspects of self. The literature suggests identity cohesion is perhaps the most important achievement for the narrator when constructing biography from their personal experience. They can use narrative to re-examine and re-interpret the meaning of past experiences, and from this define their present sense of self. This enables maintenance of an evolving but basically stable identity.

The personal narrative is often utilised by people to explain sensitive experiences in their lives, including those of difficulty and distress (Hydén, 2008; Schütze, 1992a, 1992b). Such experiences are often associated by the narrator with turning points in their life journey — a way of thinking about experience also known as 'epiphanies' (Denzin,1989, p. 22). The expression 'critical incident' is similarly used, defined as "some event or situation that marked a significant turning-point or change in the life of a person or an institution…or in some social phenomenon" (Tripp, 2012, p. 24).

Narratives are therefore a way of accounting for experience by re-creating it. Narrative fills the space between 'what happened' and 'what it means' (Didion, 1961, cited in Kramp, 2004, p. 107), since the storyteller is able to interweave recalled events with their subjective responses to these events and in this way re-construct experience. The re-construction illuminates their subjective interpretations and how they have attributed meaning to life experience (Rosenthal, 1993). Narrative therefore builds personal understanding (Caine, Estefan, & Clandinin, 2013; Lawler, 2002) and is a way humans make sense of, and thereby essentially construct, their world.

5.3 PROBLEM-BASED LEARNING

The diversity of learners who may undertake these units of competency means that learners will bring different kinds and amounts of experience into the learning environment. Problem-based learning (PBL) may then work as an approach that can situate learners outside of a familiar context in which they may, together, apply their understanding or skills to a case of practice. PBL is a small-group, learner-centred approach to learning and teaching. Learners work in small groups and are presented with an unfamiliar problem, scenario or task. This approach was pioneered by McMaster University for medical education in the 1960s and has been widely adopted by medical schools globally. In addition to being adopted in other areas of health profession training, PBL has also been used in disciplines such as engineering, science, computing, business and education.

PBL requires active participation and the role of the educator is to provide guidance and support for learning. Learners must engage in self-directed learning and work collaboratively to explore the problem presented. The problem is designed to provide 'triggers' that focus the group towards particular concepts or learning objectives. The emphasis of PBL is to foster application of knowledge rather than rote learning or memorisation of facts. PBL aims to enable students to translate knowledge into practice as well as encouraging active participation and development of teamwork skills.

The benefits gained by using PBL as a learning mode include:

- Increased learner engagement and motivation
- Activation of prior learning
- Improved retention of knowledge
- Promotion of life-long learning
- Facilitation of knowledge integration
- Contextualisation of learning
- Promotion of team work

It has also been suggested that the PBL process assists with skill development for leadership including:

- Managing meetings
- Resolving conflict
- Using group problem solving
- Decision making tools
- Gaining insights into the emotional aspects of leadership

5.3.1 Problem-Based Learning Process

The PBL process was originally implemented in medical education at a number of universities. The Maastricht model was devised by Maastricht University to provide a structured approach to undertaking a PBL session. Group members were assigned roles and worked through specified steps to explore the problem.

These roles are:

- **Chair:** Facilitate involvement of all group members, ensure each group member has a role, clarify group decisions and tasks, confirm priorities and keep the group on track during meetings
- **Researcher:** Document research, summarise findings, and provide information or explanations of research findings to group
- **Scribe:** Record ideas and issues discussed, strategies chosen to solve problems and tasks to be completed by group members
- **Authors:** Write or prepare final draft of any material to be submitted by the group
- **Timekeeper:** Monitor timelines or schedule to enable the group to meet deadlines

Other roles can be devised to suit particular contexts.

This process is adapted and used more or less formally in the PBL tasks that are undertaken during each workshop. The process for undertaking the PBL is comprised of seven steps across a number of sessions.

SEVEN STEPS IN PROBLEM-BASED LEARNING		
1	CLARIFY	The learners read through the problem, then identify and clarify any words, equations or physical concepts that they do not understand.
2	DEFINE	The learners work together to define what they think the problem is.
3	ANALYSE	The learners discuss or 'brainstorm' the problem. At this stage there is no prioritisation or sifting of ideas.
4	REVIEW	Learners now try to arrange their ideas and explanations into tentative solutions.
5	IDENTIFY LEARNING OBJECTIVES	The group reaches a consensus on learning objectives, if necessary with the guidance of the facilitator.
6	SELF-STUDY	Learners individually gather information towards the learning objectives and prepare to share their findings with the rest of the group.
7	REPORT AND SYNTHESISE	The learners come together in their groups and share their results. The facilitator checks that the learning objectives have been met.

Table 3: Seven steps in problem-based learning

Steps 1 – 5 can be undertaken in one session. Step 6 is undertaken independently and Step 7 can be completed at a second session. This approach can be modified for an intensive focus. Variations of the process can be used, such as providing resources to allow research to be undertaken as part of a longer session, using a shorter timeframe to draw upon existing knowledge or having a more complex problem that is undertaken across more sessions. The overarching aim of the process is retained.

5.3.2 PBL Facilitation

In PBL the role of the educator is as facilitator to assist and guide the session rather than being responsible for running the session. This requires allowing the group to work through the problem and to assist the chair, if necessary, to maintain group dynamics and keep the group working through the task. The educator also needs to monitor the direction of the group and ensure that they identify learning objectives that align with the intended objectives for the session. Appropriate prompts and questions may need to be made by the educator to ensure this. A more active educator role may be required in the final stage of the PBL process to assist with suitable formats for presentation of work and to check students' understanding of the material.

5.3.3 PBL Problems

In real life problems are often ill-defined or 'messy'. Problems designed for PBL sessions are intended to reflect this. Learners work on ill-structured problems that relate to a real context which promotes application of knowledge to new situations. PBL can be used to simulate the professional context and real work situations and can encompass policy and process as well as ethical problems which may need to be understood. Creating the scenarios or problems is a key element for effective PBL sessions. An effective PBL scenario is one in which the issues raised by the learners and the learning outcomes they identify correlate to the broad issues and objectives that were planned by the problem designers/writers.

Some factors that have been identified in construction of problem scenarios are:

- Scenarios should provide sufficient interest by integrating knowledge or relating to real world situations
- Cues should be included in the scenario to stimulate discussion and motivate students to seek explanations
- The problem outlined in the scenario should be sufficiently open to ensure the discussion is not restricted or truncated
- Scenarios should encourage students to gather data or information from a range of resources

5.3.4 Working in Teams

Problem-based learning rests on co-operative learning. This may prove challenging for some participants. The use of syndicate groups can provide benefits such as increasing performance, skill development and blending complementary strengths. At the same time, some of the issues experienced by groups may reflect those found within contexts where gender equity is not upheld. This may emerge through dominant participation, or non-inclusive forms of communication. It could also result from individuals' inability to solve conflicts, lack of creativity or groupthink. For all these reasons, incorporating opportunities for reflection during workshops and individual forms of reflection post the experience would encourage participants to use their experience and learning from syndicate groups in a meaningful way.

5.3.5 Using Evidence

Just as we are arguing that use of evidence will inform the intentionality of teaching practice around gender equity so, too, can these PBL scenarios be used to incorporate evidence that groups need to address through their learning. The use of quality of evidence, both through analysis of trends and through the curation of appropriate evidence to allow for gender assessments, can strongly inform the design of problem-based scenarios. Learners would be encouraged to consider the way in which the evidence with which they have engaged responds to the problems at hand and assists in their resolution. Encouraging direct connections between evidence and gender equity practice is important to consolidate learning outcomes.

5.4 ONLINE LEARNING

With much of the material being disseminated using online platforms, it is necessary to consider some of the dynamics that may impact on online engagement. Significantly, the overarching intention is to ensure that the online learning environment will be successful for all participants. Some research points out that male and female participants engage differently with course material in the digital spaces (Cuadrado-Garcíaa, Ruiz-Molinaa, & Montoro-Pons, 2010; Garland & Martin, 2005). Online learning platform design should be cognisant of gender dynamics and of how these could impact interaction in the space (Garland & Martin, 2005; Ramírez-Correa, Arenas-Gaitán, & Rondán-Cataluña, 2015). The research in this space is sparse; however, there is a need to model equitable practice to ensure that learning content and resources present learning opportunities inclusively.

Some researchers note that the crossing of learning and technology has complex implications for gender, with the underlying premise being that men and women learn differently (McKnight-Tutein & Thackaberry, 2011). While some research refers to the objectivity of the digital learning environment (Margolis & Fisher, 2003), others reflect on the complexity of the online learning space, which may not necessarily be free of gender-related tensions (Gunn, McSporran, Macleod, & French, 2003). Gender may emerge as an influential factor when considering the multiple roles that individuals balance as they tackle the complexities of the online learning spaces (Kramarae, 2003).

Additionally, the relative anonymity of online study may prove isolating and alienating for some learners (Latchem, 2014).

There are suggestions that women possess a preference for subjective and affective methods, with others intimating that women opt for learning in a relational context (Hayes, 2001). Other research points to the view that greater percentages of female students successfully complete online courses compared to their male counterparts, suggesting that female students are more receptive to online learning than male students (Anderson & Haddad, 2005; Morante, Djenidi, H, & West, 2017; Price, 2006; Selwyn, 2007). It would appear that the reflective nature of online learning acts as a better facilitator for female participants, as they believe they can manage the learning experience better (Anderson & Haddad, 2005). Furthermore, it is suggested that females regulate their online participation better, due to their preference for more structured, linear learning, demonstrating stronger motivation to complete their online courses (Yoo & Huang, 2013). Female students post more messages in the online learning spaces compared to male students (Caspi, Chajut, & Saporta, 2008; Prinsen, Volman, & Terwel, 2007). Female participants prefer a pastoral mode of learning, interacting more affectively with course content than their male counterparts (Price, 2006). However, both female and male students are usually actively engaged in online learning, with both groups revealing a desire to be motivated and improve their knowledge and skill (Lim and Kim (2003, cited in Yoo and Huang, 2013). Forums, conversational elements and blogging appear to be viewed more favourably by female online learners (Latchem, 2014).

Research also considers how language utilised in online teaching influences beliefs and values through gendered language (Benson, 1997). In this context, certain terms of reference may unconsciously reduce the output of female students, as they are challenged within the online space by gendered references. Closer scrutiny of how language is used, how questions are posed and how discussion occurs (Beebe, 1998), prompts both online facilitators and teachers to modify and adjust language use to be more inclusive and encompassing of all students. In online communication, male participants favour more assertive language, demonstrating a preference for establishing a position to achieve an outcome (Cross & Madson, 1997). On the other hand, female students opt for more expressive, polite contributions to online forums, appearing to value dialogue, rather than to dominate (Basow & Rubenfeld, 2003). Furthermore, female students appear to favour the building of community and creating connections through their communication patterns (P. Rovai, 2001). Female learners demonstrate a preference for the online study mode, as it offers greater psychological safety (Burge, 1998), and reduces the discomfort for non-traditional learners (American Association of University Women, 2001). Online instructors and facilitators should be aware of gender dynamics, bearing in mind that some reference points and postings could be intimidating to female students (Garland & Martin, 2005).

More specific to the online teaching and learning space, there is a need to engage students in content that aligns with their experiences (Riggs & Linder, 2016). Among the recommendations to support online learning, there is an expectation that students will be pre-assessed through deliberate engagement and intervention, that the teacher or facilitator will occupy a key role in the online space, and that content and delivery will be developed intentionally for digital learning (Roddy et al., 2017; Stone, 2017). Furthermore, connection and collaboration is strengthened and sustained in the online learning areas through proactive connections, ensuring that the learning journey is intentional and directed (Riggs & Linder, 2016; Stone, 2017). Student participation in e-learning activities appears to correlate with the task design, including the use of well-structured activities, supported by visuals, and academic support by the facilitator (Cuadrado-Garcíaa et al., 2010). Online learning may benefit all learners as digital spaces allow more thinking time and a more composed, controlled response (Coombs, 2000).

6. CONCLUSION: A FRAMEWORK FOR DESIGNING GENDER EQUITY UNITS OF COMPETENCE

This research identifies a framework to guide the design of the units of competency. The framework outlines a set of principles derived from the theoretical concepts which include:

- an understanding of the environment and its influences on gender equity;
- concepts around behaviour change, transformation and intersectionality;
- the features of competence development; and
- educational approaches.

These ideas are depicted in the figure below:

Figure 1: A framework to guide design and teaching of gender equity accredited units of competency

In this figure, the first circle recognises the socio-ecological contexts in which both the learners and the gender equity units are situated. This requires the application of a systems lens to understand the complexity and inter-relationships of environmental influences on individuals' propensities to develop and/or change their gender equity-related competence. This then requires the application of this lens within the design of the specific gender equity units and as part of their accompanying teaching and learning practices.

The second circle draws in four practice perspectives to optimise teaching and learning about gender equity.

1. The Integrated Behavioural Model which outlines perspectives on how to achieve behavioural change and which can be applied to teaching and learning practice.
2. Theory of Social Cognition which outlines a framework for practice so that teaching increases desired behaviours when learners go through an internal process that consciously informs the manner in which people interact.
3. Perspective Transformation and Critical Reflection which outline principles of practice that build a critically reflective orientation in individuals and groups and which propel people to transform their perspectives or actions.
4. An intersectional approach to educational practice which recognises the interplay of personal identity and social disadvantage.

The third circle identifies the need for a rich understanding of how we understand the elements that constitute gender equity competence. This requires understanding the limitations and potential within the current vocational education and training context and a reframing of competence based on a rich understanding of the concept. Such reframing promises educational practice with greater possibility for achieving the positive change around gender equity that the design and delivery of the units seek to influence.

It is proposed that the combination of these ideas strongly position educators and educational leaders to guide adult learners to question gender norms, practices and structures which are experienced individually and socially, to reflect on the personal and professional values that influence practice and to change practice.

6.1 IMPLEMENTATION OF FRAMEWORK

The implications of the above have been incorporated into a framework presented on the following pages which outlines:

- Principles derived from the theoretical concepts contained in this report
- Guidelines which highlight specific implications for the gender equity units
- Suggestions for educators to take cognisance of, as these relate to teaching and learning approaches, setting up the educational environment and facilitating interaction among learners
- A few examples of strategies to achieve these suggestions which are further expanded following this framework

OVERARCHING FRAMEWORK PRINCIPLES	GUIDELINES FOR DESIGN FOR MODULES OF COMPETENCY	WHAT EDUCATORS SHOULD TAKE COGNISANCE OF			EXAMPLES OF TEACHING AND LEARNING STRATEGIES
		In designing teaching and learning experiences, educators should:	**In creating high quality learning environments, educators should:**	**In facilitating valuable and productive interaction in the learning context, educators should:**	
1. **Recognition and awareness of the socio-ecological contexts in which both the learners and the gender equity units are situated (Bronfenbrenner, 1994).**	**An orientation to competency development which lead learners to:** See that human experiences are nested, with individuals being surrounded by layers of experience which impact on their thoughts, experiences and emotion. Gain awareness of how environmental dynamics and personal interactions impact on learning. Gain awareness of how individuals construct their environments through experiences, participation, social subtleties and the wider environmental systems that impinge on them.	Engage, inform and foster the principles of gender equity and its associated tenets to enhance awareness of impartiality and non-bias. Augment learners' knowledge relating to contextual factors which impact on the establishment and maintenance of gender equity in various situations. Address factors that impact on perceptions of gender, through judiciously selected content, materials and activities. Assess learners through tailored material which compels an awareness of contextual factors that may impact on their thinking and behaviour with regard to gender equity.	Focus on the contextual and environmental factors which influence learning, such as an awareness of individual learner needs, and the key dynamics which foster equitable gender practices. Reduce and eliminate bias through deliberate organisation and arrangement of the learning spaces. Assess learners through activities which evaluate the factors within their own contexts, and the contexts of others which compel certain beliefs, thinking and behaviour with regard to gender equity.	Foster productive learner/ educator and learner/ learner interaction to contribute to a holistic learning experience that is representative of equitable and impartial practice with regard to gender. Target improved learner awareness with regard to bias and discrimination, especially in relation to gender. Assess learners to engage with others through thoughtful interaction, to ascertain contextual and circumstantial dynamics which influence thinking and behaviour with regard to gender equity.	Journaling Case Studies and Scenarios Forums Biographical Reports Visual Diaries Storytelling Oral Reports and Recounts Background Knowledge Probe

OVERARCHING FRAMEWORK PRINCIPLES	GUIDELINES FOR DESIGN FOR MODULES OF COMPETENCY	WHAT EDUCATORS SHOULD TAKE COGNISANCE OF			EXAMPLES OF TEACHING AND LEARNING STRATEGIES
		In designing teaching and learning experiences, educators should:	**In creating high quality learning environments, educators should:**	**In facilitating valuable and productive interaction in the learning context, educators should:**	
2. **Consideration within gender equity units of the knowledge, skills, salience and environmental constraints that promote behavioural change in learners (Montano and Kasprzyk, 2015).**	**Support competency outcomes so that learners:** Understand how an individual's emotions contribute directly to the behaviours they exhibit. Become aware that behaviour is influenced by an awareness of potential outcomes or consequences. Recognise that significant individuals within a specific context influence the execution of behaviour, including role models and encouragement from peers. Grasp that behaviour is also intricately linked to confidence levels, and to whether the target behaviours are perceived of as being acceptable/ desirable to the individual. Perceive that environmental factors may inhibit or encourage these behaviours, and may run counter to the individual's intention to perform the target behaviours.	Embed skills and knowledge that consider attitudinal shifts and consequent behavioural changes with regard to gender equity. Target behavioural change and attitudinal transitions by exposure to intentionally selected material. Expose participants to noteworthy role models. Assess learners' behavioural intent and their commensurate skill and knowledge through deliberately framed scenarios and case studies.	Create learner awareness of social norms and inherent gender beliefs of groups. Use the learning group/ community as an exemplar of group formation and as a behavioural context. Encourage learners to view behaviour more equitably and holistically. Create awareness of the legislation, policies and social dynamics which impact on learner behaviour and learning outcomes. Assess learners' behavioural changes through a process of reflection, utilising activities which demonstrate shifts in thinking regarding gender equity.	Inspire introspective consideration of individual control and power within particular contexts, which lead to the execution of certain subjective behaviours and action. Urge considered interaction, asking learners to be explicitly aware of the societal and legislative tenets which govern such interaction. Assess learners through group tasks that compel interaction that allows for a demonstration of skill and knowledge regarding gender equity.	Flipped Classrooms Group Analysis Personalised programming Debates Narrative/Personal Reflections Research Project Editorial or Feature Articles Opinion Polls Student Surveys

OVERARCHING FRAMEWORK PRINCIPLES	GUIDELINES FOR DESIGN FOR MODULES OF COMPETENCY	WHAT EDUCATORS SHOULD TAKE COGNISANCE OF			EXAMPLES OF TEACHING AND LEARNING STRATEGIES
		In designing teaching and learning experiences, educators should:	**In creating high quality learning environments, educators should:**	**In facilitating valuable and productive interaction in the learning context, educators should:**	
3. **Embedding the ideas within gender equity units that learners' behaviours are a product of both internal and external stimuli, drawn from the environment through observational learning (Bandura, 1976).**	**Build competency in learners to ensure that they:** Note that behaviour is often modelled by others, and it is through observation that behaviour is regarded as acceptable and likely to be repeated. Understand that rewards, both intrinsic and extrinsic, contribute to the replication of behaviour. Discern that behaviour is intentional, being a composite of internalised thinking, observation and replication. Realise that rewards and gratification that arise when performing certain behaviours are likely to result in those behaviours being repeated, strengthened and retained.	Embed values, behaviours and ideals appropriate to gender equity which demonstrate rewards and gratification, positioning this stance as valued and beneficial. Encourage learners to identify and model behaviours which embrace the ideals of society and the wider world, with regard to eliminating gender bias. Assess learners through their ability to identify and evaluate modelled behaviours in noteworthy role models in their contexts, with regard to demonstrated gender equity awareness.	Articulate and reinforce behaviours that embrace equity and parity, encouraging more direct engagement with learner profiles and their individual dynamics, to ensure that biased views are addressed. Interact in contexts which facilitate applications that allow learners to see the benefits of gender equity, or the impacts of gender inequities, for Australian societies. Assess learners through tailored role play, which requires an identification of targeted behaviours appropriate to the principles underpinning gender equity.	Interact with and be exposed to a range of acceptable, modelled behaviours, displaying gender equity. Encourage the potential benefits of learned behaviours regarding gender equity in their interaction with their peers. Assess learners through designed demonstrations, dramatisation or short films, assessing their ability to acknowledge and identify appropriate behaviours, and to reflect on the processes that may have contributed to these.	Role Play Demonstrations Short Films Interviews Group Projects Dramatisation Posters Visual Prompts Cliff Hanger Lecturing Socratic Questioning

OVERARCHING FRAMEWORK PRINCIPLES	GUIDELINES FOR DESIGN FOR MODULES OF COMPETENCY	WHAT EDUCATORS SHOULD TAKE COGNISANCE OF			EXAMPLES OF TEACHING AND LEARNING STRATEGIES
		In designing teaching and learning experiences, educators should:	**In creating high quality learning environments, educators should:**	**In facilitating valuable and productive interaction in the learning context, educators should:**	
4. **Incorporating the concept within the gender equity units that transformation is facilitated through critical reflection and interaction through deliberate reflection and engagement (Mezirow, 1995; Freire, 2005).**	**Build competency outcomes by urging learners to:** Alter their perceptions through reflecting on and challenging the assumptions that impact on their experiences, producing new and transformed meaning. Reflect on their beliefs and values and how these could translate into different and improved outlooks which impact on behaviour and thought. Engage with how experiences are framed and named, addressing accepted beliefs and norms, encouraging a fresher outlook, through the development of a critical consciousness. Renew social practices through challenging and being critical of established practices and positions.	Provide multiple learning opportunities and experiences to allow learners to challenge their own beliefs and established thinking regarding gender. Direct learners toward, and intentionally develop, material that encourages critical thinking and questioning. Assess learners through a critical reflection of their own responses, through designed portrayals, representations or group demonstrations, and an evaluation of the factors that impinge on these responses.	Reflect critically through engaging deliberately with the beliefs of others, and aligning these with personal perceptions regarding gender, create appropriate contexts for transition and movement. Create dialogic interactions in which learners are urged to develop and model critical thinking skills, share and communicate with others, challenge their own assumptions and beliefs about gender and reflect on the changes. Assess learners through exposure to how critical reflection is facilitated in both individual and group settings, reflecting through mapping exercises on how responses reveal internal processing.	Create platforms to address established thinking about gender equity, leading to the development of new ideas and altered beliefs and values. Provide multiple platforms to set up alternative and provocative positions to allow learners to engage with peers as a means to contest and test their beliefs, both established and formative. Assess learners through modified tasks to reflect critically on individual factors which could contribute toward theoretical and practical shifts in behaviour regarding gender equity.	Collective Brainstorming Gamification Role Play Reviews Demonstrations Reflection Tools Peer Assessments One Minute Thesis Concept Mapping Problem-Based Learning

OVERARCHING FRAMEWORK PRINCIPLES	GUIDELINES FOR DESIGN FOR MODULES OF COMPETENCY	WHAT EDUCATORS SHOULD TAKE COGNISANCE OF			EXAMPLES OF TEACHING AND LEARNING STRATEGIES
		In designing teaching and learning experiences, educators should:	**In creating high quality learning environments, educators should:**	**In facilitating valuable and productive interaction in the learning context, educators should:**	
5. **Develop an awareness, through the gender equity units, that experiences are shaped by intersecting factors which contribute to human identity and perception (Crenshaw, 2016).**	**Boost competency by locating students in a manner that they:** Recognise how personal identities may be a construct of multiple policies, beliefs, values and experiences intersecting at various points. Consider how aspects like sexuality, race, culture and age may become definitive when contemplating how individuals relate to their contexts, other people and the systems around them. Reflect on the view that personal experiences are shaped by one's awareness of equity and inequity and advantage and disadvantage, allowing individuals to broaden and develop their perceptions of their own thinking and the world around them.	Establish clear pathways for all participants in the environment to establish themselves as full contributors and members, without prejudice or discrimination. Provide multiple scenarios that address gender equity and how it intersects with other societal elements. Assess learners through activities which require an identification of elements which could intersect, resulting in the establishment of particular thought processes and positions with regard to gender equity.	Commit intentionally to be mindful of inequity and disadvantage, creating contexts which are committed to impartial thinking and behaviour. Consider a range of scenarios which expose learners to intersecting factors that could potentially result in inequity. Assess learners through the provision of scenarios and case studies which evoke empathy and awareness, resulting in a critical contemplation of factors which interconnect to form identity.	Position learners to become more intentional with language choices and behavioural responses. Highlight factors which interconnect and transect with upholding gender equity and which may result in discriminatory attitudes. Assess learners through purposeful engagement with their peers, challenging their thinking by exposure to varied opinions and different frames of thought.	Critical Questioning Scenarios and Case Studies Problem-Based Learning Think Pair Share Jigsaw Literature Circles Challenge (Polar Opposites) Gallery Walk 'Walk in their shoes' Interviewing

6.2 PEDAGOGICAL PRACTICES

Table 8

PEDAGOGICAL PRACTICES	COMPETENCY DEVELOPMENT		
	AUTOMATIC TO REFLECTIVE Becoming aware of behaviour	REFLECTIVE TO TRANSFORMATIVE Acting on and changing viewpoints, ways of thinking, behaviour	TRANSFORMATIVE AS SOCIAL MODELLING (AUTOMATICALLY MODELLING) Acting on transformed understanding
TEACHING			
Pre and post survey to monitor awareness	●		
Self-appraisal	●		
Role play on skills practise	●		
Reflective journaling with prompts	●	●	
Video diaries	●	●	
Audio diaries	●	●	
Sharing of journal entries		●	
Prompts, triggers, cues	●		
Imagery – words associated	●		
Frayer model	●	●	
Group work	●	●	●
Reflecting on Work Based Scenarios	●	●	
Problem-based learning scenarios	●	●	●
Peer reviews/ observers		●	
Modelling through practice		●	●
Critical analysis of standpoints and viewpoints, language used		●	●
Forced position-taking		●	●
Language usage – critical analysis of imagery		●	
Persuasive writing – texts		●	●
Participation in online forum or blog			●
Peer assessments		●	●
Presenting a case for…			●
Writing an article (for online readers)			●
Critical commentaries		●	●

Table 9	COMPETENCY DEVELOPMENT		
PEDAGOGICAL PRACTICES	**AUTOMATIC TO REFLECTIVE** Becoming aware of behaviour	**REFLECTIVE TO TRANSFORMATIVE** Acting on and changing viewpoints, ways of thinking, behaviour	**TRANSFORMATIVE AS SOCIAL MODELLING (AUTOMATICALLY MODELLING)** Acting on transformed understanding
ASSESSMENT			
Reflective pieces		●	●
Personal reflection		●	●
Short answer questions	●	●	
Case studies		●	●
Questions in response to a problem-based scenario		●	●
Analysing pre-prepared data	●	●	
Quizzes	●	●	
Reviews		●	
Action plans for change		●	●
Poster presentations		●	●
Projects (research/ evidence informed)		●	●
Reports		●	●
Case studies and analysis		●	●
Conducting interviews			●
Oral presentations		●	●
Illustrated manuals			●
Prompts, triggers, cues	●	●	
Self contracts		●	
Selection of targeted behaviour change		●	
Critical analysis of data		●	●
Transforming language usage		●	●
Learning contracts		●	●

Tables 8 and 9 provided teaching and assessment practices which relate to specific dimensions of competency development. These practices are well known to trainers and facilitators and support effective learning engagement.

6.2.1 Online Learning Tools

Within the context of teaching gender equity, trainers and facilitators may also consider the use of learning technologies. There are many available and below we have listed a number of current online learning tools.

- **Virtual workplace –**
  usually developed to sit within a learning management system, virtual workplaces are online workplace environments enabling participants to contextualise learning into practice
- **Penzu –**
  online reflective journal
- **Socratic –**
  online visual explanations on subjects
- **Poll Everywhere –**
  live online polling to engage participants in real time analysis
- **Edmodo –**
  online platform to send messages to participants and share class materials
- **Kahoot –**
  online platform to create, share and interact with participants through gamification
- **Padlet –**
  collaborative online platform to create boards, documents, and webpages
- **Survey Monkey –**
  online survey platform
- **Spiral –**
  online participant communicate platform
- **Quizlet –**
  platform for creating classroom materials and online collaboration
- **Peergrade –**
  online platform to facilitate peer feedback sessions with participants
- **iBrainstorm –**
  a creative space for online sharing
- **Go Soap Box –**
  an online platform for formative assessment
- **Dot Storming –**
  online voting to allow groups of people to collaborate on a topic
- **Coggle –**
  online collaborative mind-mapping tool
- **Back Channel Chat –**
  live online platform to facilitate real-time participant discussions
- **Chatzy –**
  online chat service to create a participant space for peer discussion
- **Concept Board –**
  online collaboration workplace with whiteboard functions for participant discussions
- **Google Docs –**
  online platform to create, edit and collaborate with others on documents

What is common with all of the above is their ability to engage participants in collaborative and often real-time learning through technology.

6.2.2 Educator Dispositions

It is important when teaching gender equity that teachers and facilitators consider the ways in which they orient themselves in their teaching practice based on the competencies they are trying to develop amongst their learners. Below we have listed a number of teaching approaches to inform educator disposition for consideration.

- **Facilitator –**
  teacher as a guide to support understanding of a subject
- **Encourage different perspectives –**
  teacher as a creator of an inclusive learning space
- **Directive –**
  instructive teaching
- **Responsive –**
  teaching that observes the participant and then leads the teaching to support the participant's individual needs
- **Advocate –**
  teaching which empowers the participant
- **Sees feedback as learning –**
  teaching which creates a positive feedback loop to support learning outcomes
- **Feeds forward into learning –**
  teaching approach which uses assessment outcomes to plan future learning approaches
- **Provocateur –**
  teaching approach which challenges thinking
- **Critical –**
  teaching approach which questions and challenges positioning
- **Aware of their power as assessor –**
  an approach which ensures the assessor has identified and acknowledged their own position of power in relation to the assessed and is ethical and responsible in the use of that power
- **Critically reflective –**
  as a teaching approach and in teaching practice reflecting on own work to inform future action
- **Self-reflective –**
  a teaching approach which ensures that the teacher considers what works and what doesn't within their teaching practice, and adapts accordingly
- **Open to learning –**
  an approach which positions the teacher as learner
- **Respectful of difference and positionality –**
  an approach which ensures the teacher has considered their own positioning as it relates specifically to gender equity, and considered their negative biases and ovids them interfering with teaching and assessment practices
- **Critically aware –**
  teaching approach which employs metacognitive strategies in the classroom
- **Power sensitive –**
  teacher approach which considers the teachers position of power in relation to the participant and is responsible in the use of that power

Teachers and facilitators can use these approaches in their practice supporting values-based learning; learning which seeks to transform participants' 'hands', 'hearts' and 'minds' and inform participants' practice, values and understanding of gender equity in the workplace.

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Supporting gender equity education: A research project to inform gender equity units of competency

Gender Equity Training Project Research Paper

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Visit whv.org.au/our-focus/gender-equity for full details of the Gender Equity Training project consultation process.

Women's Health Victoria acknowledges and pays our respect to the traditional custodians of the land, the peoples of the Kulin nation. As a state-wide organisation, we also acknowledge the traditional custodians of the lands and waters across Victoria. We pay our respects to them, their culture and their Elders past, present and emerging. We recognise that sovereignty was never ceded and that we are beneficiaries of stolen land and dispossession, which began over 200 years ago and continues today.

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