

vision for the future



MANAGEMENT

The Future of Work Start with your Own VET Workforce

Allison Miller



NATIONAL VET CONFERENCE
GOLD COAST 2021

#2021NVC



ABOUT: ALLISON MILLER

Allison Miller is a professional learning and business development leader of 25 years.

She is the Director and Lead Consultant of Digital Capability, an organisation which specialises in cutting edge online learning and online business solutions.

Allison has:

- Master of Learning and Development (Organisational Development)
- Graduate Certificate in Innovation and Entrepreneurship
- Bachelor of Education (Secondary Business)
- Diploma of VET, and Certificate IV in Training and Assessment
- Diploma of Business

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How did I get here?



2000-04



2005-06



2007-11



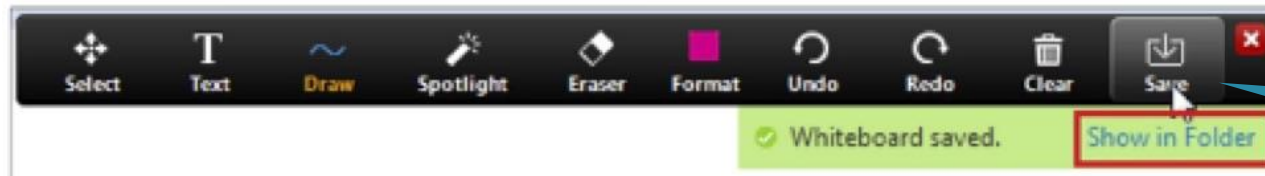
2012-now

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Session overview

- **Planning your VET workforce's digital skills is important**
- **Supporting VET trainers as dual professionals**
- **Using the Australian Workforce Digital Skills Framework (AWDSF)**
- **Preparing your VET workforce for the future of work**
- **Building digital capability using digital approaches**

VET Sector = Having industry-ready students ... now and into the future

About the skills sector

For: 

Vocational education is central to Australia's economic growth and business productivity. Australia needs a vocational education and training (VET) system that ensures qualifications are designed to provide the skills that employers and industry need now and in the years to come. A strong VET sector will boost the employment outcomes of those completing VET courses and instill confidence in users of the sector.

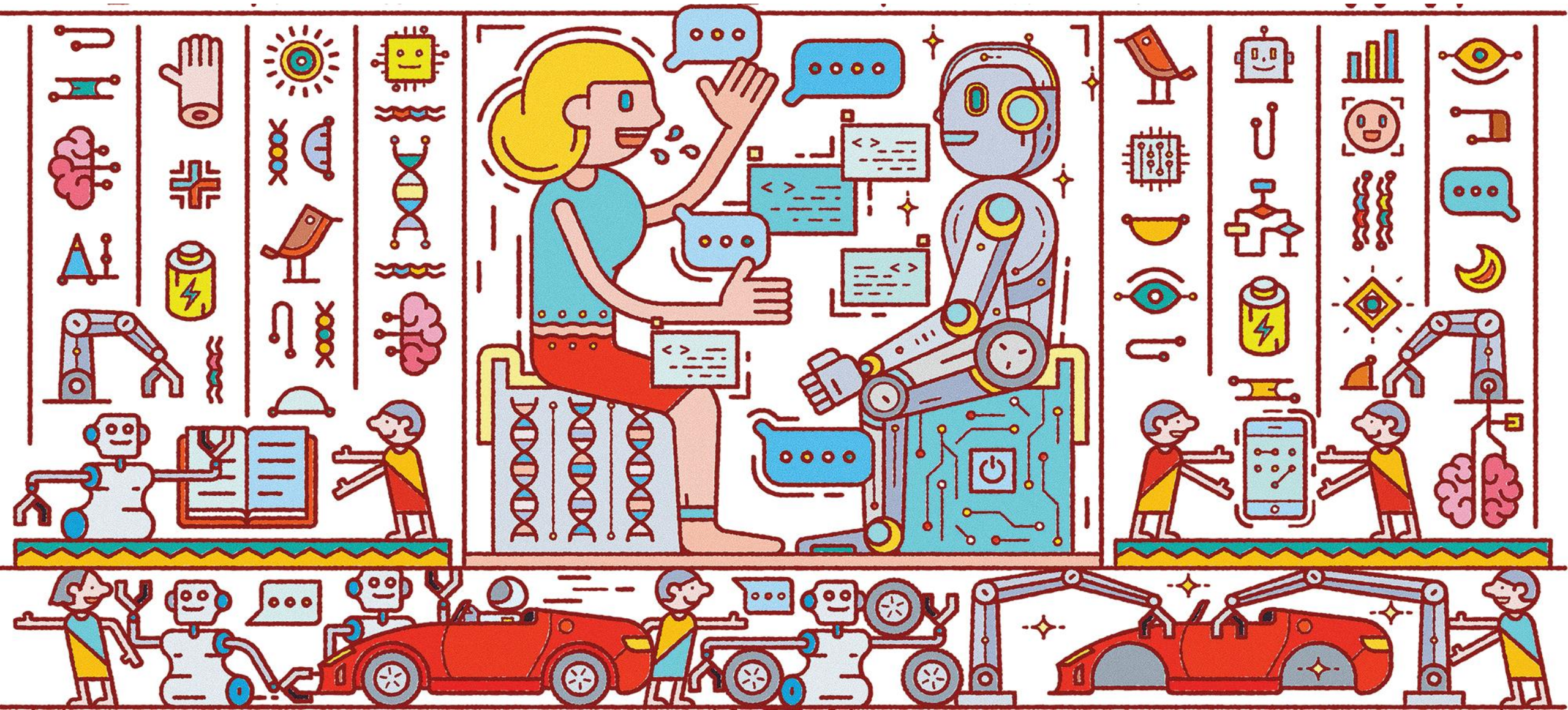


“375 million jobs will be automated by 2030”

(Gekara, et al 2020, pg vii)

People who can work alongside robots

Wilson & Daugherty (2018)



Artificial Intelligence/Automation – Aged care



Artificial Intelligence/Automation – Building and construction



Artificial Intelligence/Automation – Urban planning



Artificial Intelligence/Automation – Logistics

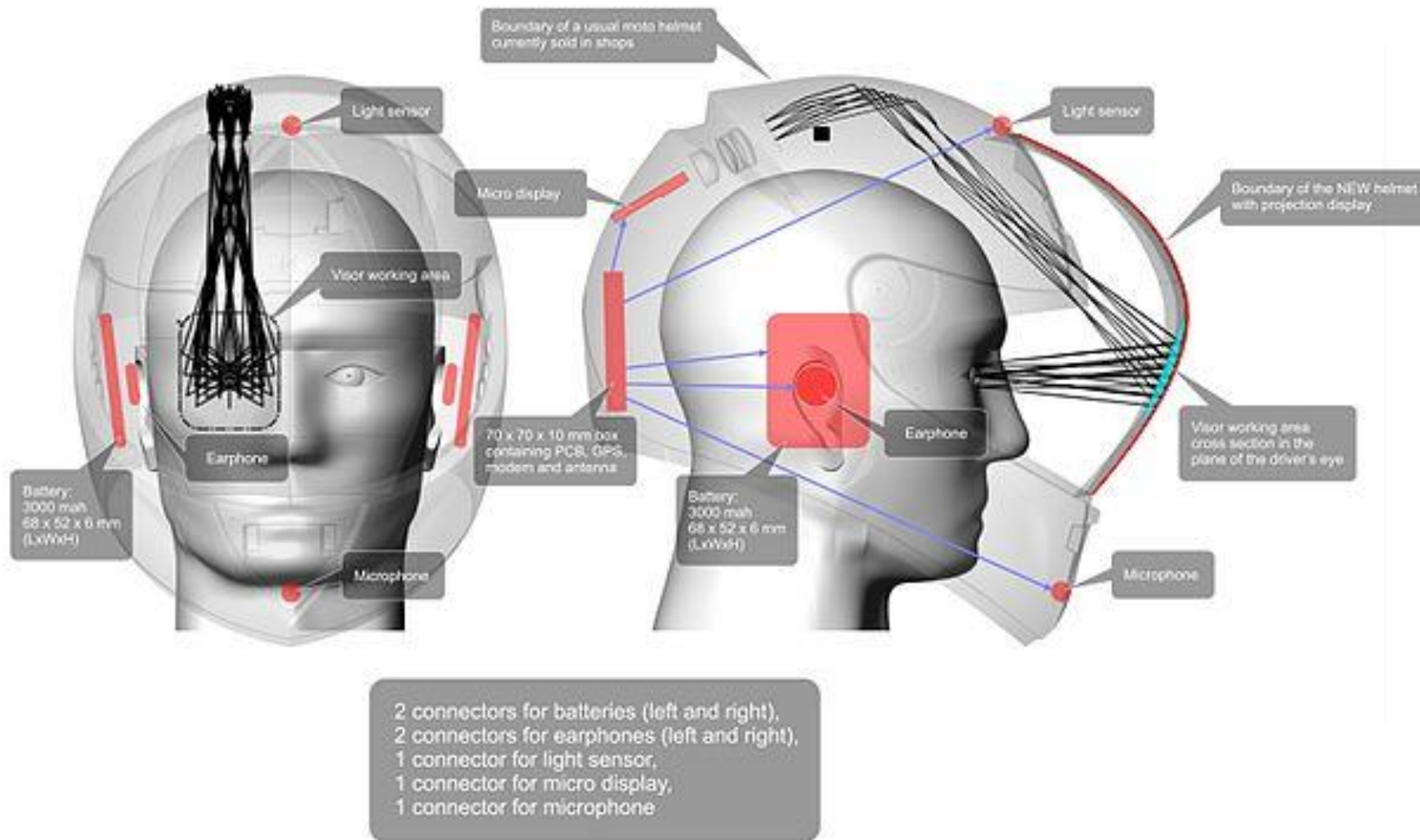


Beer is now being delivered via autonomous trucks in Denver.

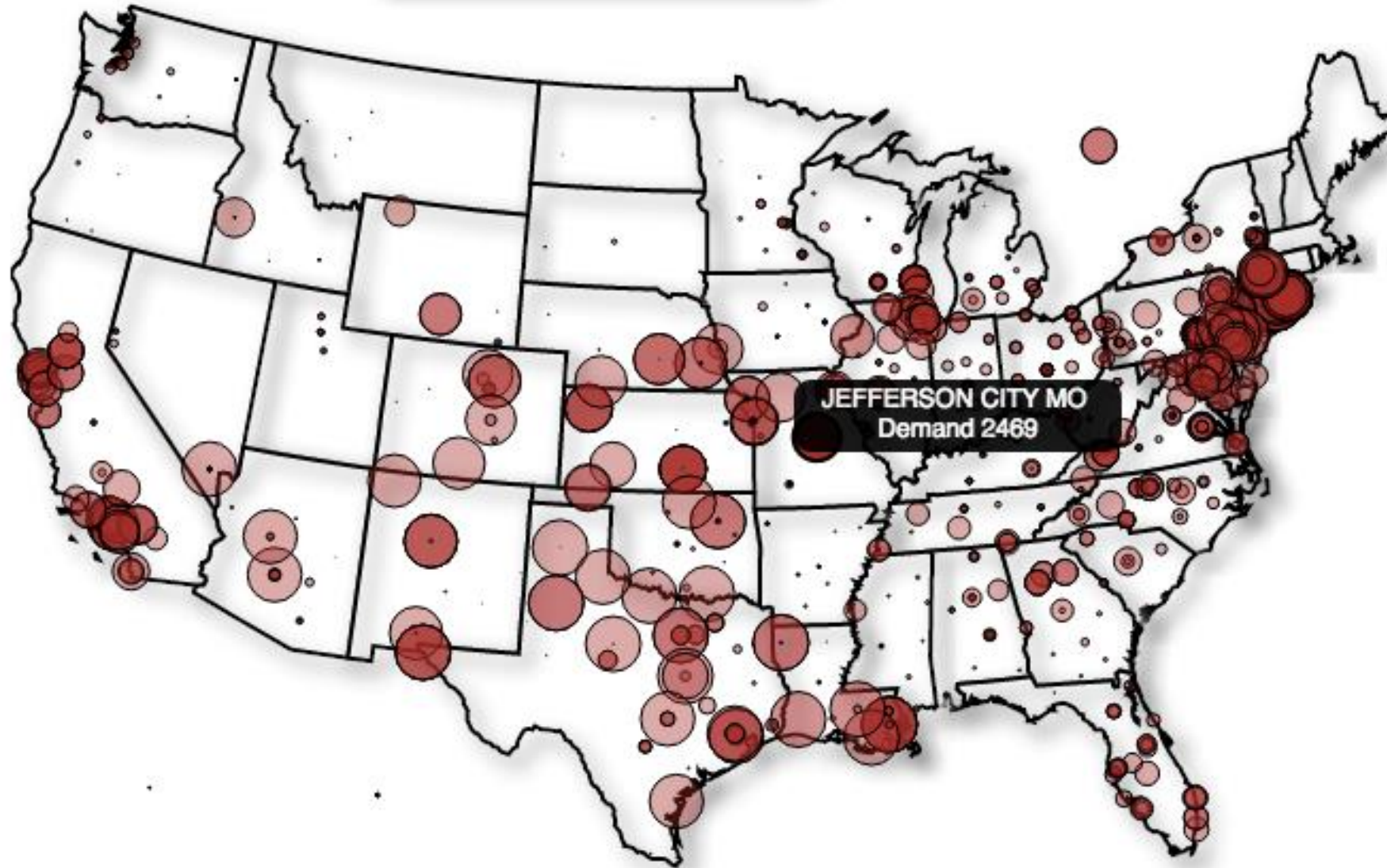
Artificial Intelligence/Automation – Mining, Agriculture, Aquaculture



Artificial Intelligence/Automation – Construction & Mining industry



Data analytics / visualisation – All industries



All industries – Modern offices



What?

How will the 'future of work' impact your industry/ies?



VET trainers are dual professionals



“So what should we tell our children? That to stay ahead, you need to focus on your ability to continuously adapt, engage with others in that process, and most importantly retain your core sense of identity and values. For students, it’s not just about acquiring knowledge, but about how to learn. For the rest of us, we should remember that intellectual complacency is not our friend and that learning – not just new things but new ways of thinking – is a life-long endeavour.”

Blair Sheppard

Global Leader, Strategy and Leadership Development, PwC

“New ways of thinking”

PwC, No date, pg 4

“New and innovative teaching methods”

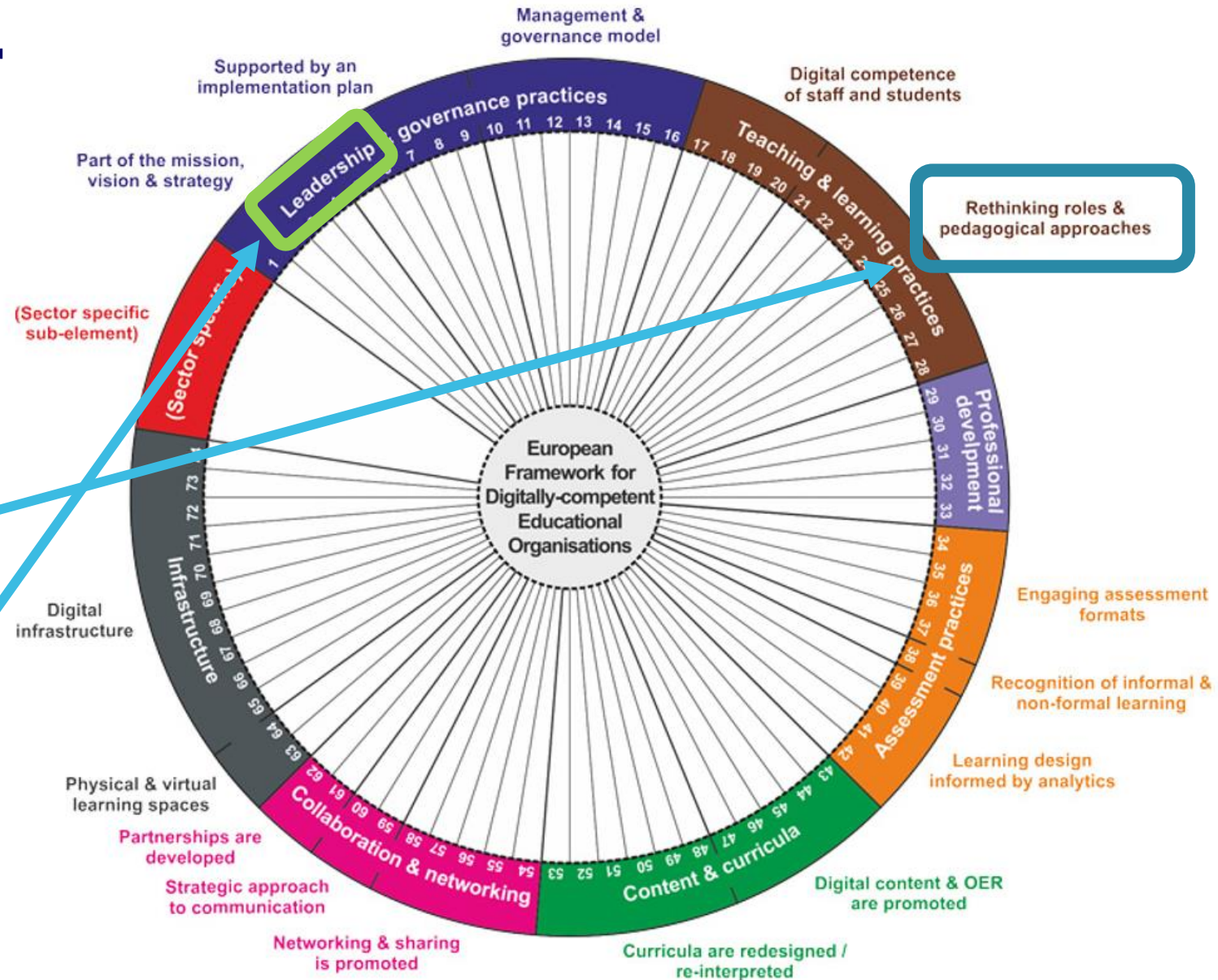
Reeson, et al, 2016 pg 5

EDUCATOR CAPABILITY

- VET educators will need to respond to digital disruption on two fronts - as plays out in the workplace and as it plays out in their own teaching practice.
- Each change in the use of technology in the workplace represents a training and development requirement for educators. Educators need to be proficient users of the latest workplace technology so that they can teach students how to use it correctly and troubleshoot the errors that occur when technology is used inappropriately or the system fails.

- Education and learning will increasingly be delivered through digital channels and educators will need different pedagogy and skill sets in order to use them effectively in their teaching. This means that today’s VET teaching workforce needs to be supported to build the capability required to deliver new and innovative teaching practices that respond to tomorrow’s workforce skill needs.
- Currently, not all educators are comfortable with and proficient users of digital technology. Time, investment and support will be required to build educators’ capability to deliver VET in an increasingly digital learning and workplace environment.

Digitally Competent Educational Organisations (DigCompOrg)



Rethinking roles
& pedagogical
approaches

Leadership

Kampylis, et al, 2015, 18

DigCompOrg – Teaching & Learning Practices

A rethinking of roles and pedagogical approaches takes place	
The organisation empowers and expects staff and students to adopt and adapt effective and innovative pedagogical practices made possible by the use of digital learning technologies and to use these practices in diverse learning settings (inside and outside the organisation) and for various purposes (formal and informal).	
Staff are partners in change	The organisation aims to establish a culture where staff (and including students as appropriate) are considered as partners in change and are encouraged and incentivised to take measured risks and to explore new approaches that actively contribute to the integration and effective use of digital learning technologies for comprehensive learning outcomes.
New roles are envisaged for staff	The organisation empowers staff to act as mentors, orchestrators and facilitators of learning and as role models for lifelong learning and personal professional updating . It is expected that staff will experiment with the creative and innovative use of digital technologies to make improvements to learning and teaching.
New roles are envisaged for students	The organisation promotes diverse digital learning technologies and multi-modal content, tools and platforms that foster student-centred approaches optimised for particular learning contexts (including, for example, audio-visual material, e-portfolios, OER, simulations, serious games, coding and maker environments, creative arts). Students are encouraged and expected to act as self-directed learners and may be considered and included as co-designers of the learning process .

Pedagogical approaches are expanded	Teaching and learning is 'redesigned' to incorporate digital technologies. Building on relevant research, the organisation promotes a diversity of technology-enabled learning and teaching practices that are flexible, adaptable and engaging (e.g., learning by playing, learning by exploring, learning-by-creating, learning-by-doing, augmented and enhanced through digital technologies).
Personalised learning is developed	The organisation supports and anticipates the use of digital learning technologies to increase opportunities for personalised learning , taking into account students' strengths, potential, and expectations .
Creativity is promoted	Students and staff are encouraged to explore and diversify their creative practices by using digital technologies as enablers of creativity and creative expression.
Collaboration and group work is expected	As learning is a social process, the organisation encourages and expects collaboration and group work, supported in many cases by digital tools and platforms . This fosters the abilities of staff and students to think and work both independently and with others, enabling them to consider a plurality of perspectives.
Social and emotional skills are developed	The organisation promotes the development by staff and students of social and emotional skills (the skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions) and how such skills can be applied in digital and online environments .

Digital Competence Framework for Educators (DigCompEdu)

Teaching and Learning



Teaching

To plan for and implement digital devices and resources in the teaching process, so as to enhance the effectiveness of teaching interventions. To appropriately manage and orchestrate digital teaching strategies. To experiment with and develop new formats and pedagogical methods for instruction.



Guidance

To use digital technologies and services to enhance the interaction with learners, individually and collectively, within and outside the learning session. To use digital technologies to offer timely and targeted guidance and assistance. To experiment with and develop new forms and formats for offering guidance and support.



Collaborative learning

To use digital technologies to foster and enhance learner collaboration. To enable learners to use digital technologies as part of collaborative assignments, as a means of enhancing communication, collaboration and collaborative knowledge creation.



Self-regulated learning

To use digital technologies to support learners' self-regulated learning, i.e. to enable learners to plan, monitor and reflect on their own learning, provide evidence of progress, share insights and come up with creative solutions.

TABLE 3: AREA 3 - TEACHING AND LEARNING

Redecker, 2017, pg 19, 21-22

Empowering Learners



Accessibility and inclusion

To ensure accessibility to learning resources and activities, for all learners, including those with special needs. To consider and respond to learners' (digital) expectations, abilities, uses and misconceptions, as well as contextual, physical or cognitive constraints to their use of digital technologies.



Differentiation and personalisation

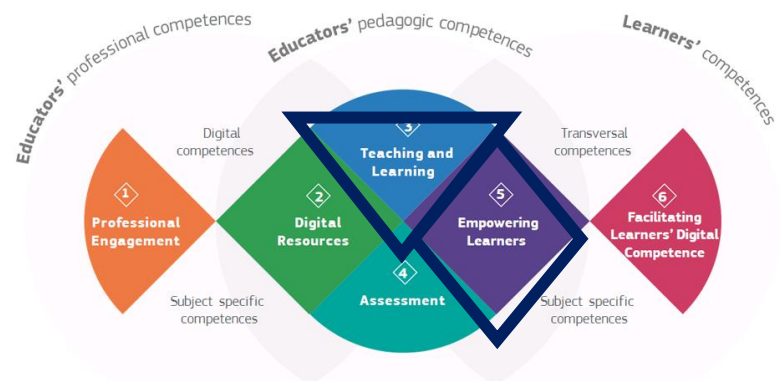
To use digital technologies to address learners' diverse learning needs, by allowing learners to advance at different levels and speeds, and to follow individual learning pathways and objectives.



Actively engaging learners

To use digital technologies to foster learners' active and creative engagement with a subject matter. To use digital technologies within pedagogic strategies that foster learners' transversal skills, deep thinking and creative expression. To open up learning to new, real-world contexts, which involve learners themselves in hands-on activities, scientific investigation or complex problem solving, or in other ways increase learners' active involvement in complex subject matters.

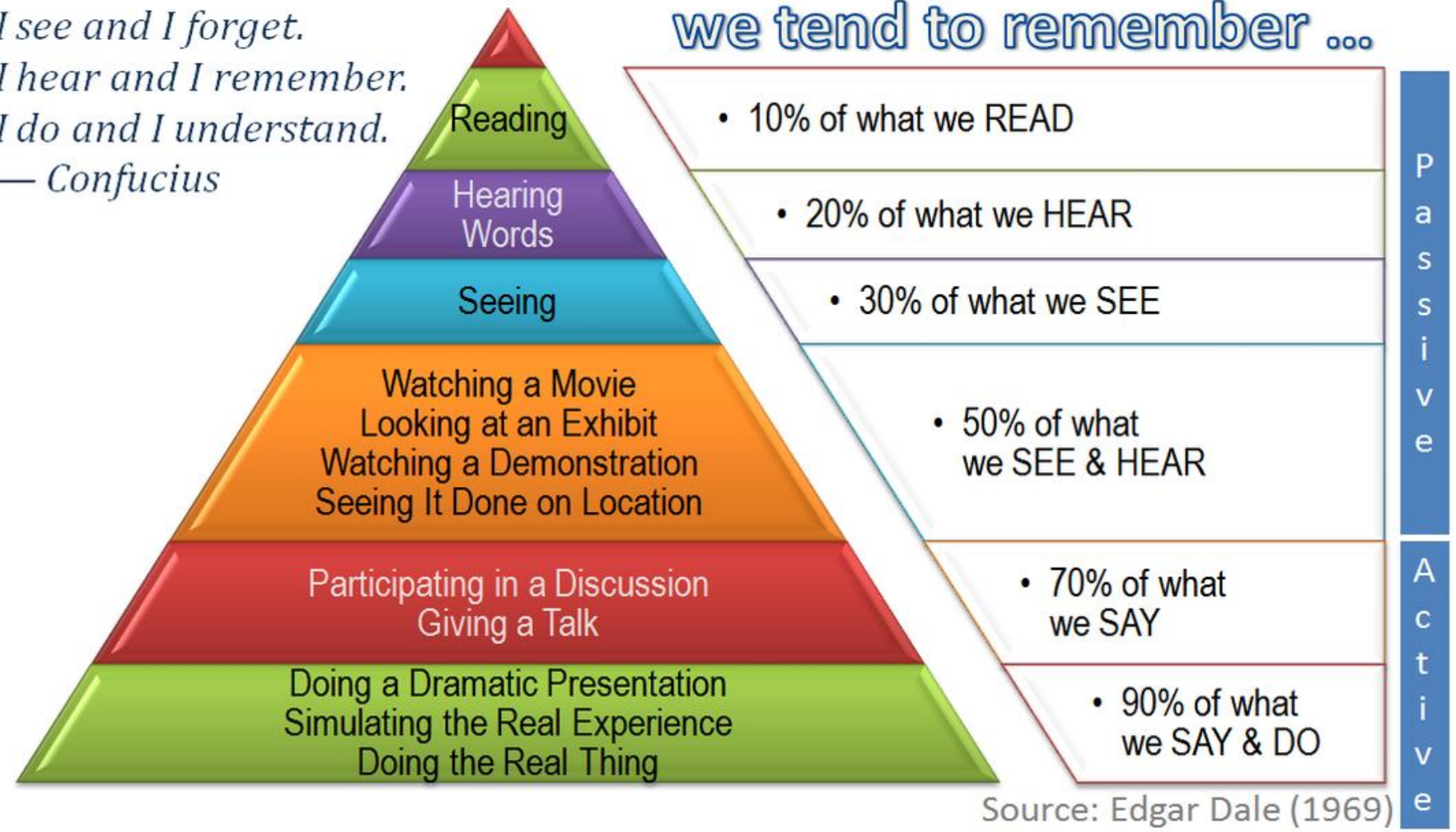
TABLE 5: AREA 5 - EMPOWERING LEARNERS



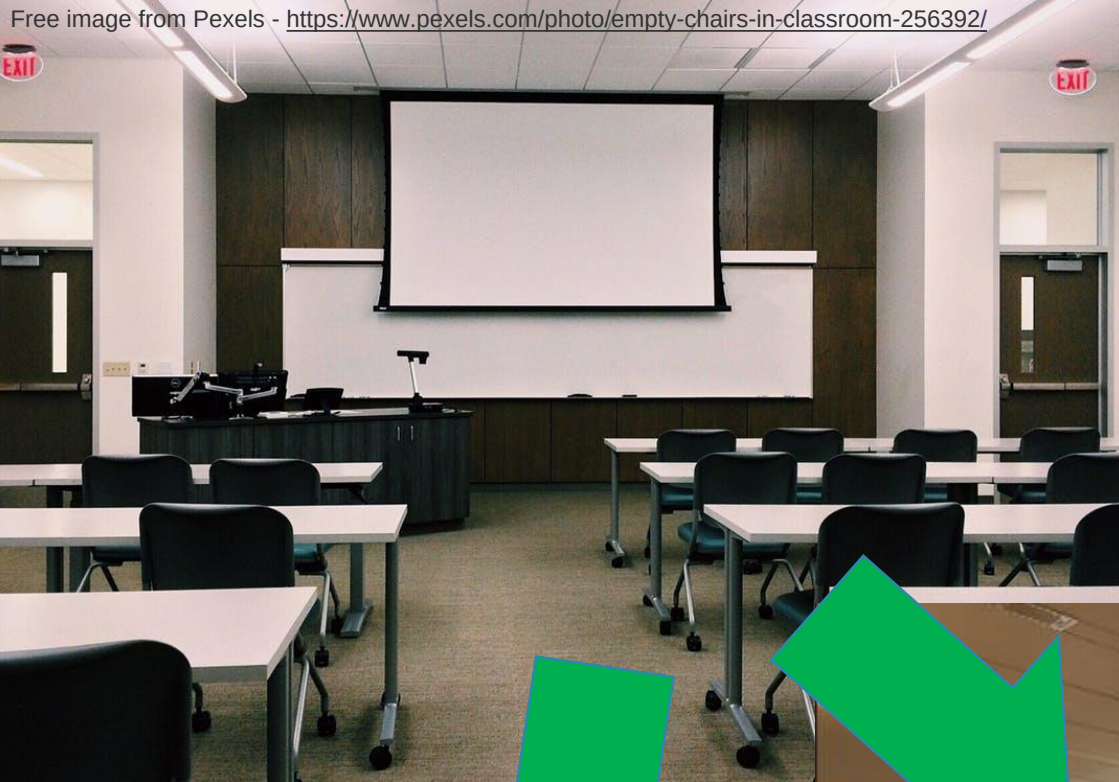
The Cone of Learning

Active
learning

*I see and I forget.
I hear and I remember.
I do and I understand.*
— Confucius

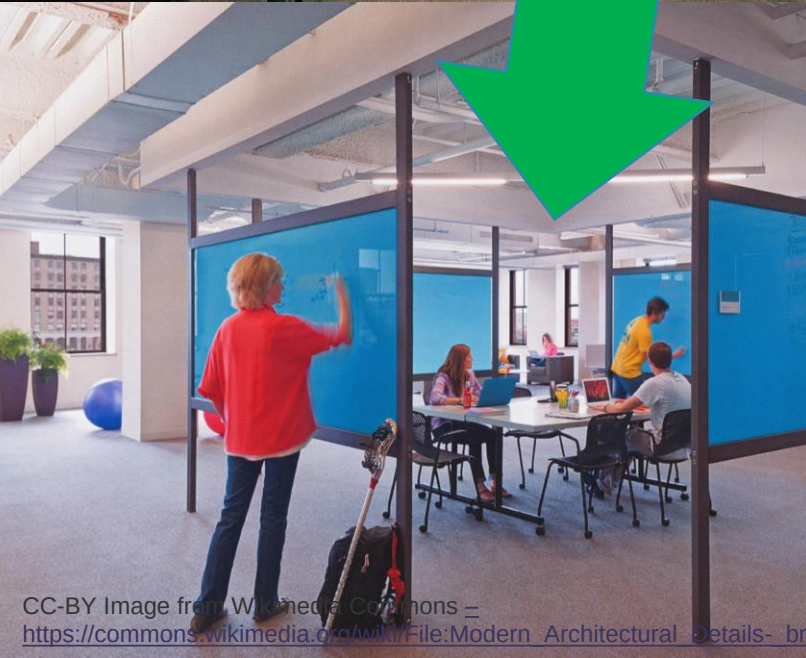


Source: Edgar Dale (1969)



Learning spaces

Moving from this to this





**How will the 'future
of work' impact
your training
programs?**

What?

Australian Workforce Digital Skills Framework (AWDSF):

Digital skills category dimensions

Gekara, et al. 2019, pg 32

Category	Subcategory	Indicator
Digital tools for working	Digital device	Keyboard skills (keyboard dexterity)
		Operate industry (job) specific digital technologies
		Learn and adapt quickly to nascent and emerging technologies (such as social, mobile, internet of things, apps, robotics, artificial intelligence etc)
	System competency	Use different enterprise information systems to complete complex transactions
Digital ways of working	Data analytics	Ability to extract insight from data analytics systems, engines and dashboards
		Ability to gather and analyse big data
	Digital communication and collaboration	Use advanced features of digital technologies with confidence for communication, cooperation and collaboration
		Effectively search, find, retrieve, process and communicate information from a variety of digital sources and in a variety of formats
Digital ways of thinking	Digital creativity and innovation	A mindset to function with an increasingly digitised workplace
		Entrepreneurial and commercialisation mindset in the digital workplace environment
		Creativity and experimental mindset in the digital workplace environment
	Digital problem-solving	Troubleshoot/solve problems that arise when using digital technologies
Living in the digital age	Digital safety and security	Recognise workplace problems and needs in the digital environment and propose innovative solutions
		Comply with organisational policies to protect hardware, software, information and systems
	Social and ethical responsibility	Analyse digital risks to identify cyber security threats and vulnerabilities
		Understand the importance of privacy in handling data and information
		Understand the positive and negative environmental impacts of digital technologies

AWDSF – Five levels of need/ performance - Gekara, et al. 2019, pg 33

Digital skills literacy

- Cognitive awareness and understanding of digital tools, ways of working, thinking and living

Digital skills competency

- Basic ability to use digital tools, ways of working, thinking and living to fulfil simple tasks

Digital skills proficiency

- Well-developed ability to apply digital tools, ways of working, thinking and living to fulfil relatively complex tasks

Digital skills fluency

- Advanced ability to apply digital tools, ways of working, thinking and living to fulfil complex tasks with ease and speed

Digital skills savvy

- Ability to troubleshoot problems in digital tools, ways of working, thinking and living, and to create innovative work processes and products using digital tools, as well as capability to quickly adapt to the digitisation of the workplace

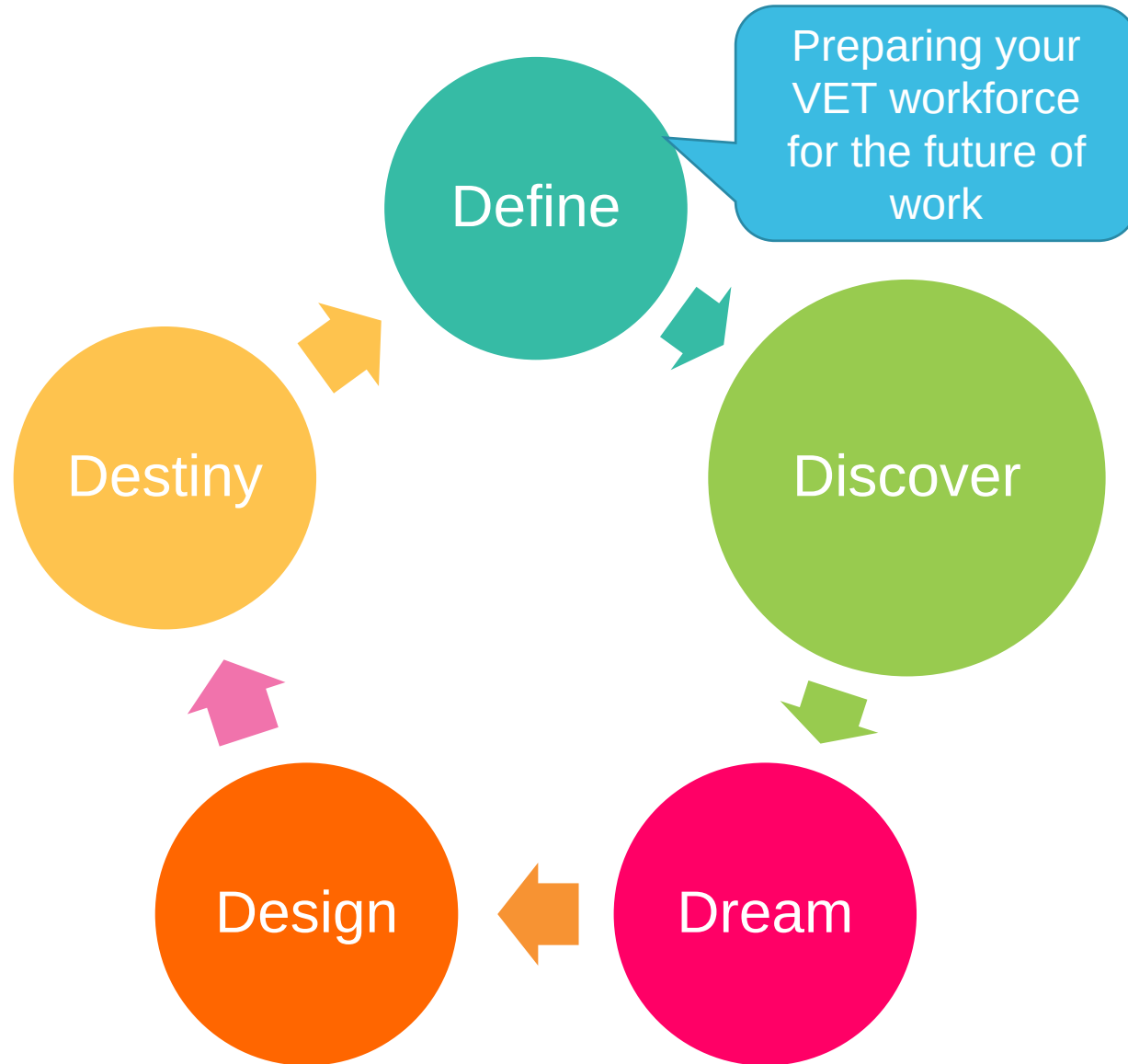
Digital skill content	Level of need/ performance				
	Literacy (1)	Competency (2)	Proficiency (3)	Fluency (4)	Savvy (5)
Digital tools for working	Understand various digital tools	Basic use of various digital tools	Application of advanced digital tools confidently and efficiently	Evaluate and select appropriate digital tools for working	Suggest solutions to solve problems in the use of digital tools
Digital ways of working	Recognise various digital ways of working	Basic ability to work digitally such as find, retrieve and communicate information from a variety of information systems in a variety of formats	Apply advanced features to work digitally such as to search find, retrieve, process and communicate information from advanced systems	Manage (analyse, compare, evaluate) the usefulness, relevancy, credibility, and reliability of digital ways of working	Identify and articulate digital issues; propose alternatives and participate in the implementation of new ways of working
Digital ways of thinking	Awareness of how to seek support and assistance when facing digital problems	Ability to communicate problems related to digital processes, routines and products	Investigates digital business processes, routines and products through an analytical and systematic approach to problem-solving	Analyse and evaluate the strengths and weaknesses of alternative digital solutions, conclusions or approaches to problems	Absorbs complex work problems and demonstrates a broad and deep ability to create innovative workplace digital work processes, routines and products
Living in the digital age	Awareness of digital threats and the social and environmental implications of digital technologies as well as basic privacy and copyright provisions	Follow/comply with basic organisational rules and policies to protect hardware, software, information and systems (for example, using anti-viruses and passwords)	Apply advanced tools, techniques and configurations to protect hardware, software, information and systems	Analyse digital risks and compliance to copyright and privacy to identify security threats and vulnerabilities	Create policies and guidelines to improve digital security and protect copyright and privacy and keep up-to-date with latest security, privacy and copyright developments

Australian Workforce Digital Skills Framework (AWDSF):

Levels of need/ performance

Gekara, et al. 2019, pg 34

Discover: Your VET workforce's digital skills now



The Future of Work starts with your own VET workforce - VET Trainer Digital Skills Survey - Template

This survey is being used to collect RTO managers' evaluation of their VET workforce's digital skills.

Data collected through this survey will be used to produce a collective picture of responses of those 2021 National VET Conference attending 'The Future of Work starts with your own VET workforce' session.

RTO managers can then use this collated data to compare their own VET workforce's digital skills to other survey respondents' VET Trainers' digital skills.

This comparison can help inform:

- what is the current level of the VET workforce's digital skills
- future digital skills capability development for the VET workforce

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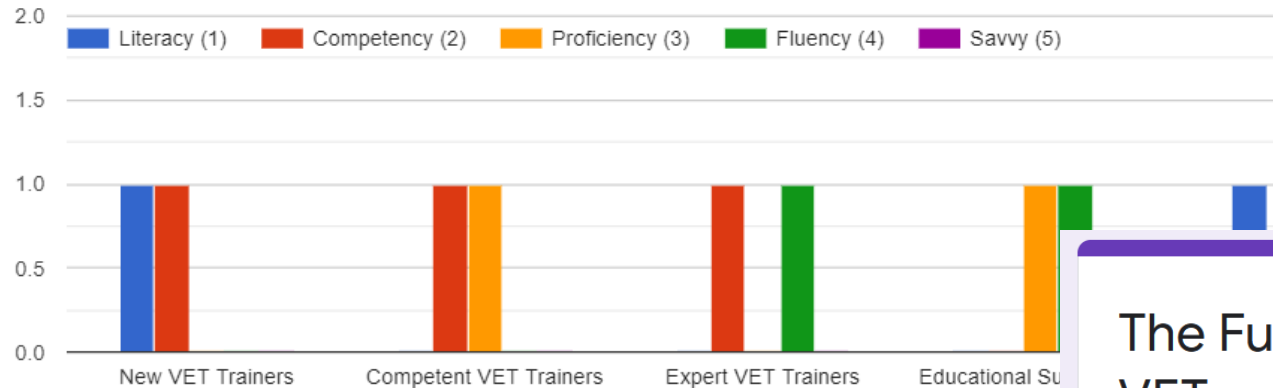
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tinyurl.com/prd3frmy

Using an Appreciative Inquiry approach

Our group results

Question 1 - Rate your VET workforce's level of performance in using digital tools for working



You can view other people's responses here

The Future of Work starts with your own VET workforce - VET Trainer Digital Skills Survey - 280621

Your response has been recorded.

[See previous responses](#)

[Edit your response](#)

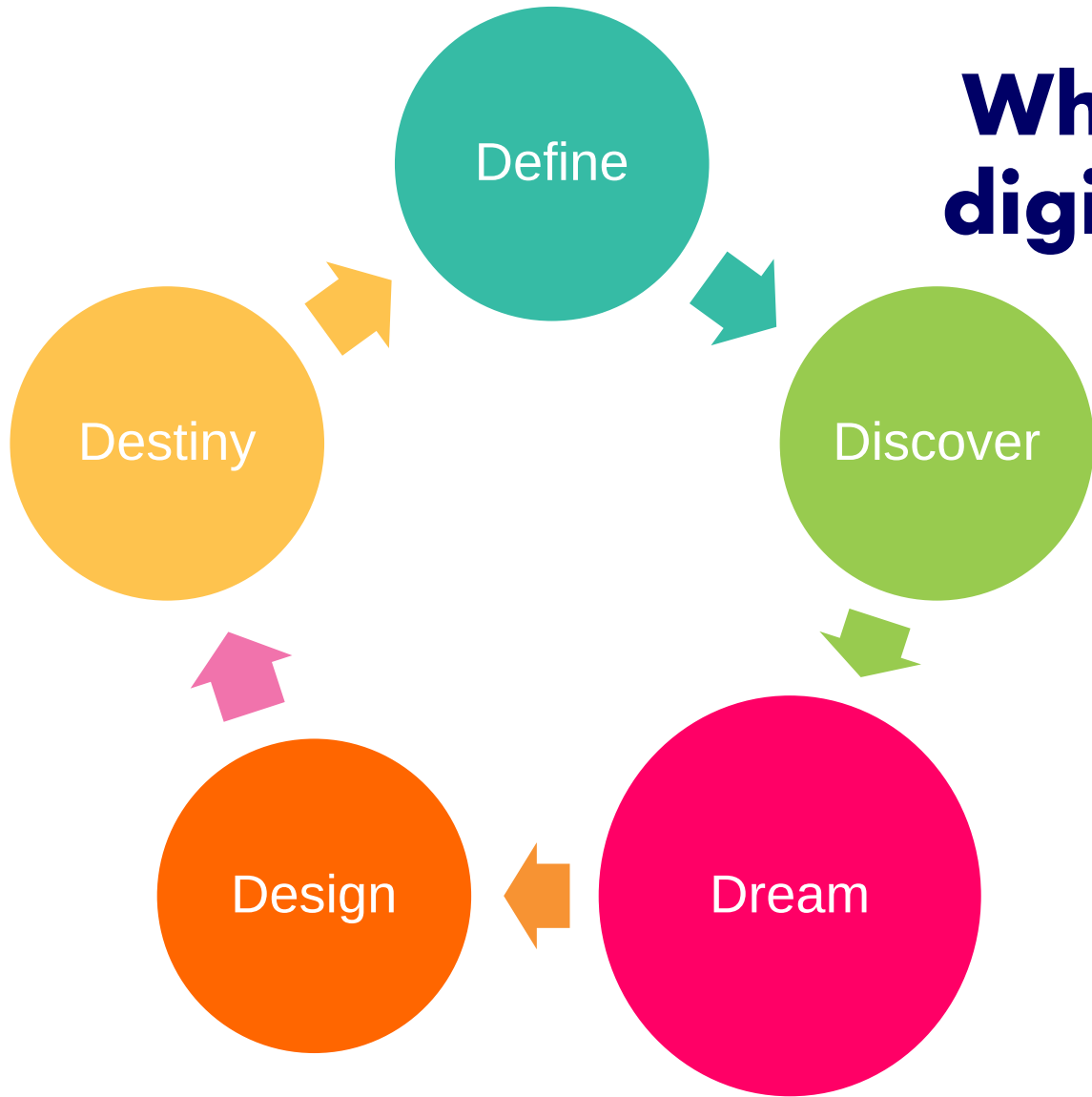
[Submit another response](#)

You can view your responses here

How do they compare to your VET workforce?

Dream:

What your VET workforce's digital skills should look like

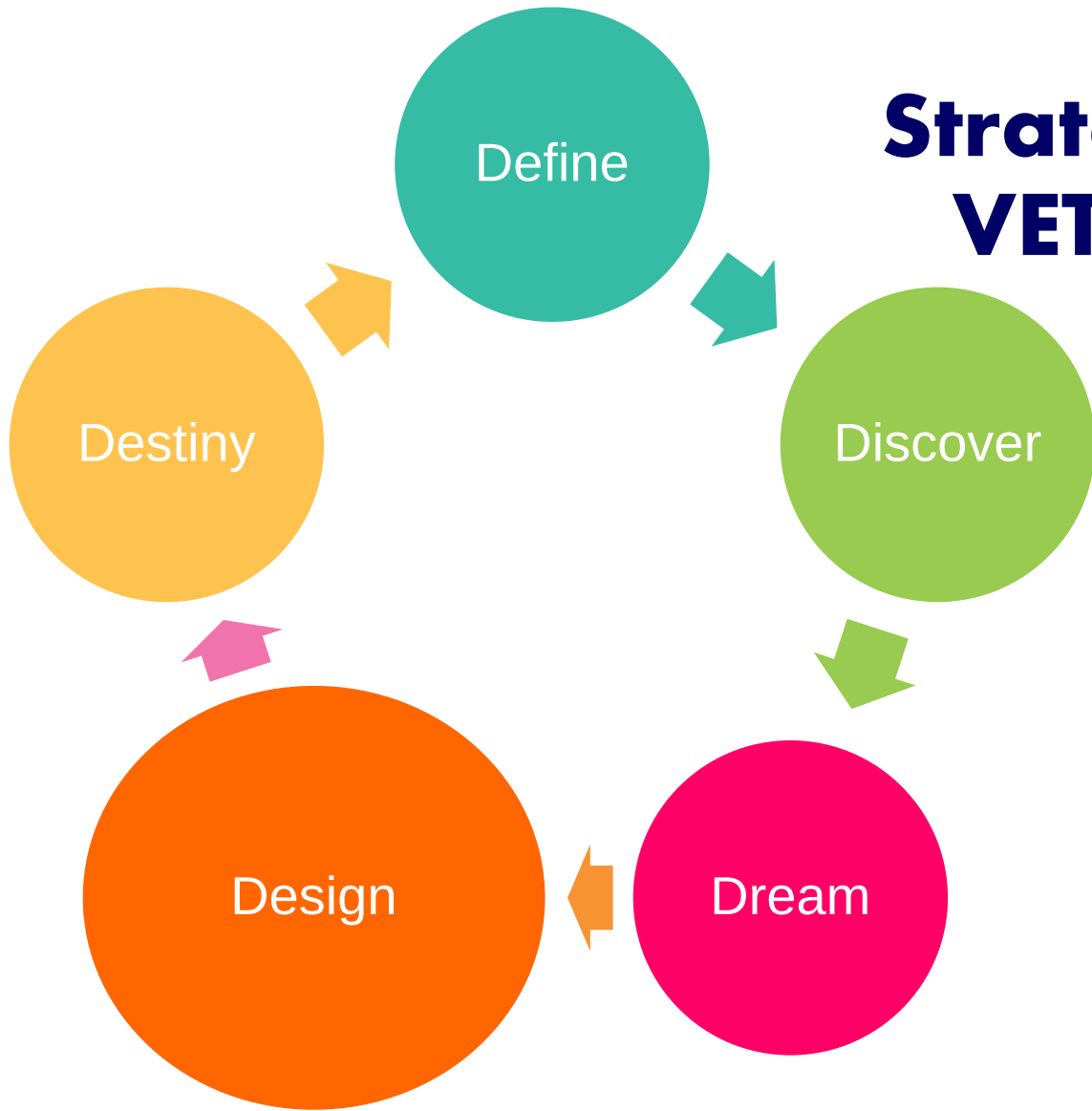


What should your VET workforce's digital skills be like for?

- *'Digital tools for working' skills?*
- *'Digital ways for working' skills?*
- *'Digital ways of thinking' skills?*
- *'Living in the digital age' skills?*

Design:

Strategies to achieve what your VET workforce's digital skills should look like



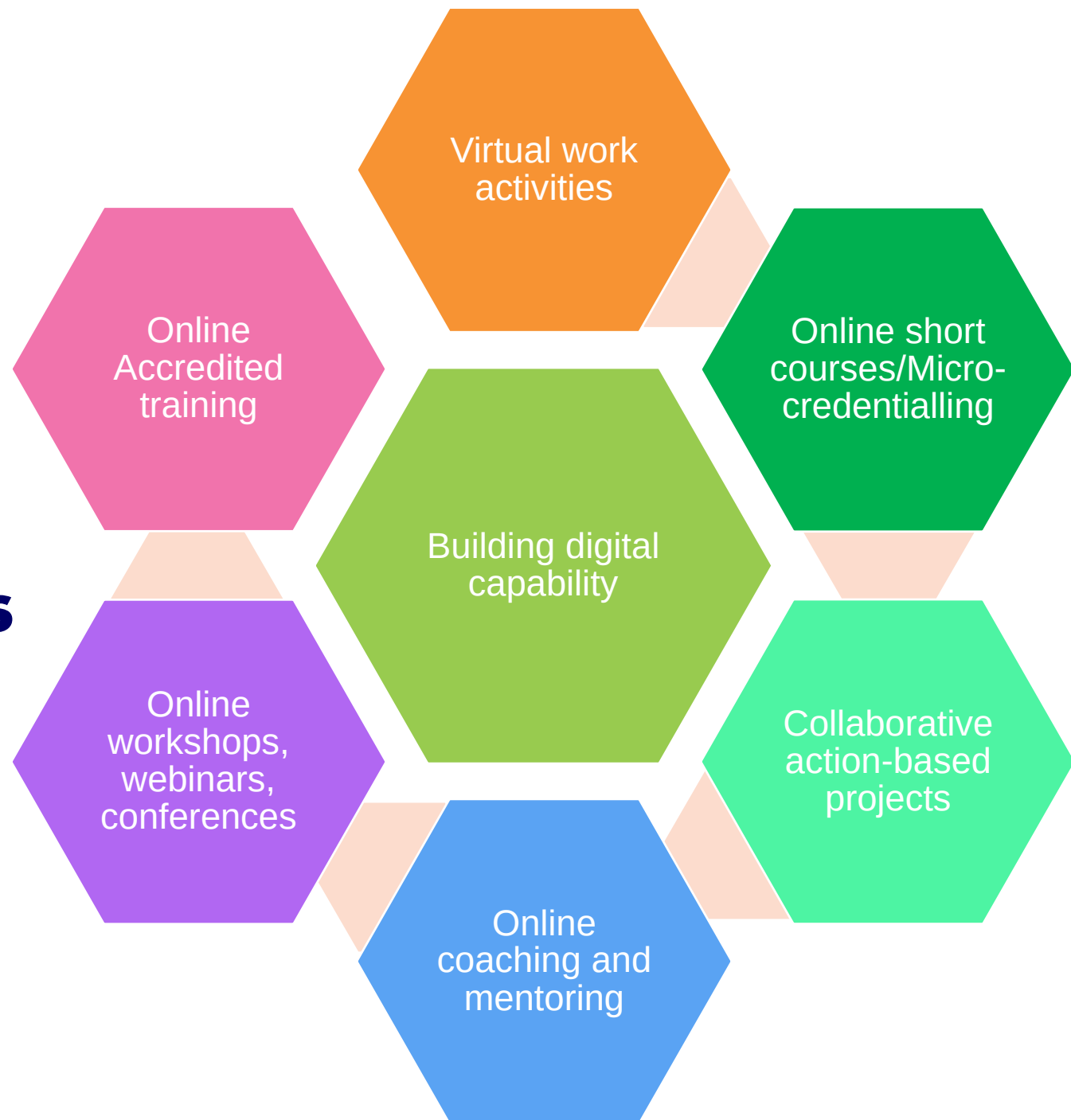
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tinyurl.com/3uu3chys

Using an Appreciative Inquiry approach

Building digital capability using digital approaches



Undertaking digital research

- Setting digital research goals
- Open data and e-journals
- Analysing data using spreadsheets, graphs, tables
- Data visualisation and infographics
- Collaborating with others online
- Preparing a digital research brief
- Presenting a business case for change, improvement / new technology

Advanced online facilitation

- When and how to use advanced facilitation techniques
- Gamification / Online quests
- Branching and immersive content (H5P)
- Badges / Micro-credentialing
- Digital simulations (AR/VR)
- Critically evaluating e-tools for advanced facilitation

Leading digital innovation and succeeding

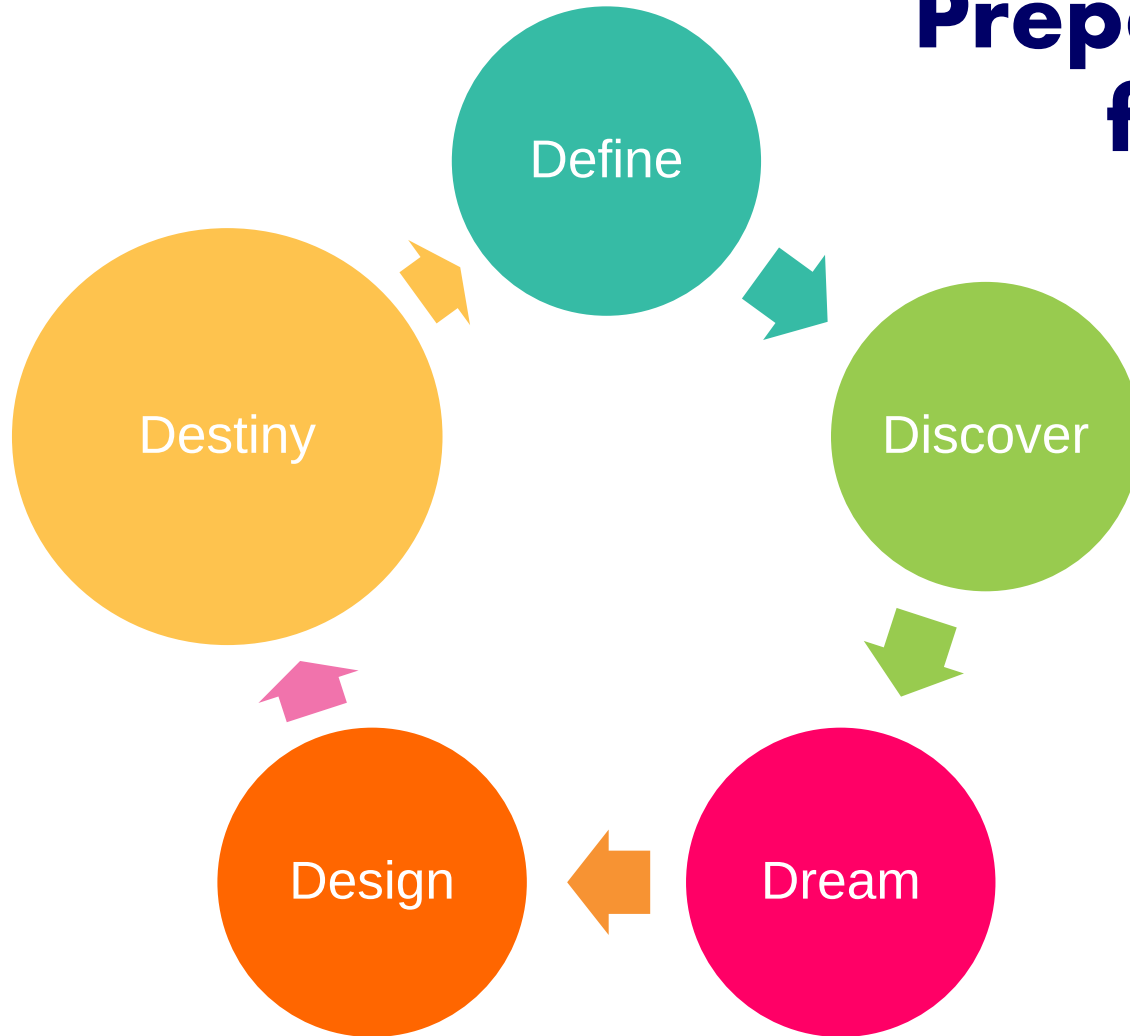
- Becoming an influencer
- Developing innovative leadership skills and techniques
- Using digitally amplifying techniques and communication strategies
- Fostering innovative team members
- Getting buy-in
- Celebrating outcomes

Adopting an adaptive mindset to realise your digitally innovative ideas

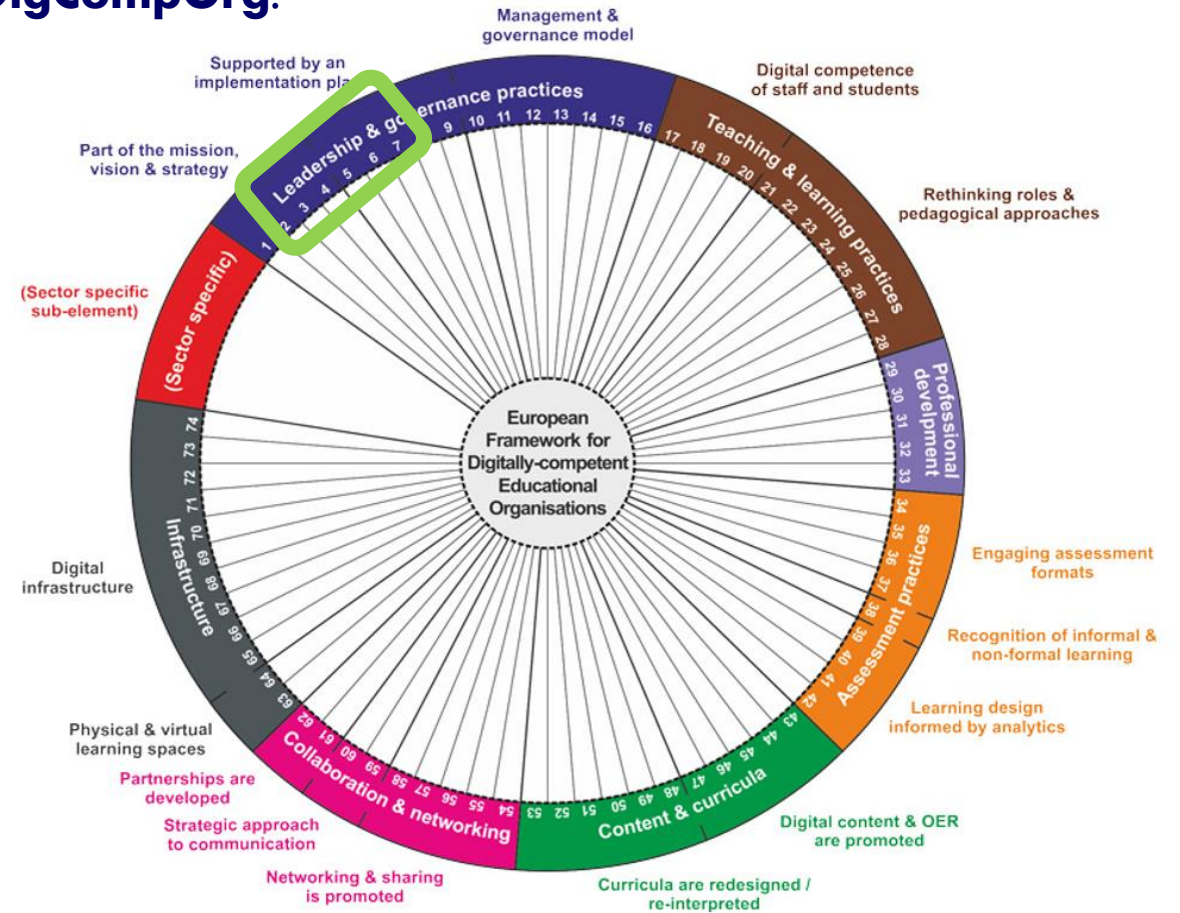
- Creative methods needed for adopting an adaptive mindset
- Agile and MoSCoW digitally innovative project management techniques
- Online collaborative and tracking tools
- Analysing and managing digital risks
- Using data analytics in digital innovative pitches and business cases
- Communicating a digitally innovative ideas and getting buy-in

**Collaborative
action-based
project ideas**

Destiny: Preparing your VET workforce for the future of work



DigCompOrg:



Using an Appreciative Inquiry approach



A guide to planning your VET workforce's digital skill development

Planning your VET workforce's digital skill development is important

The Vocational Education and Training (VET) sector plays an important role in Australia's economic, social and cultural development as it provides the skills Australians need now and into the future (Australian Government. No date).

It is predicted that "375 million jobs will be automated by 2030" (Gekara, et al 2020, pg vii), so it is important for Registered Training Organisations (RTOs) to prepare their trainers now so they have the digital skills needed to train people with the skills needed to support employers' needs, both now and in the future.

bit.ly/nvch280621

OR

tinyurl.com/8hukfjsz

DO NOT Sign in or Sign up
Look for DOWN ARROW OR DOWNLOAD button

Handout supplied...*A guide to planning your VET workforce's digital skill development*



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COMING UP **NEXT:**

11.50AM - 12.50PM



vision for the future

MANAGEMENT

**Glimpsing the Future:
Why supply chain
careers just
became cool.**

Paul Walsh

DEEP DIVE

**Analyzing Learning
Effectiveness**

John Blake

TRAINING & STUDENT ENGAGEMENT

**Training the Learning
Magician...It's a skill and
incredibly enjoyable**

Laurie Kelly

RTO ADMINISTRATION

**The Keys to RTO
Administration Success!**

Angela McGregor

GOVERNMENT / REGULATOR

**VET Student Loans –
Past, present
and future**

Kathy Dennis