Employability skills: Have we had it wrong?

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Australian Council for Educational Research
Your job now: Top three non-technical skills?

1. Manage career and work life
2. Work with roles, rights and protocols
3. Communicate for work
4. Connect & work with others
5. Recognise & utilise diverse perspectives
6. Plan & organise
7. Make decisions
8. Identify & solve problems
9. Create & innovate
10. Work in a digital world
Non-technical, soft, generic, core, essential, transferable employability skills

• In 1992, the Mayer Key Competencies were a breakthrough:
  • Recognised non-technical skills played a role in work and life
  • Drew attention to commonalities across contexts to underscore importance of these ‘skills’ (aka knowledge, skills and understandings)
27 years of progress...?

• Still producing lists and talking in labels
• Still arguing about what these skills are, what they should be called and which ones should make the (latest) list
• Still wondering how to describe, teach and assess them.
Moving beyond lists of labels

Two NTS-COPE funded projects aimed to:

• identify & describe ‘mission critical’ non-technical skills in specific job roles
  • Focus on entry-level roles in STEM-rich and care/support industries

• identify how these skills currently codified, taught and assessed in relevant VET qualifications

• Test the usefulness of the CSfW to provide a common language & reference points

• This presentation is about what we did, what we found and why it is important for VET
Work performance

What an employer sees - or hopes to see
Model of Work performance v1.0

CONTEXT

- TECHNICAL KNOWLEDGE, UNDERSTANDING & SKILLS
- NON-TECHNICAL KNOWLEDGE, UNDERSTANDING & SKILLS
- LLN
Are we talking about the same thing?

Employer priorities

Learner skills

Training emphasis
Introducing a common language

Employer priorities & workplace approach

Learner skills  CSfW  Training emphasis
Your job now: Top three non-technical skills?

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# CSfW: A three tiered framework

<table>
<thead>
<tr>
<th>Skill Cluster</th>
<th>Tier 1 Skill Areas</th>
<th>Tier 2 Focus Areas</th>
<th>Tier 3: Performance Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Navigate the world of work</td>
<td>1a. Manage career and work life</td>
<td></td>
<td>Stage 1 Novice</td>
</tr>
<tr>
<td></td>
<td>1b. Work with roles, rights and protocols</td>
<td></td>
<td>Stage 2: Adv Beginner</td>
</tr>
<tr>
<td>2. Interact with others</td>
<td>2a. Communicate for work</td>
<td></td>
<td>Stage 3: Capable</td>
</tr>
<tr>
<td></td>
<td>2b. Connect and work with others</td>
<td></td>
<td>Stage 4 Proficient</td>
</tr>
<tr>
<td></td>
<td>2c. Recognise and utilise diverse perspectives</td>
<td></td>
<td>Stage 5 Expert</td>
</tr>
<tr>
<td>3. Get the work done</td>
<td>3a. Plan and organise</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3b. Make decisions</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>3c. Identify and solve problems</td>
<td></td>
<td></td>
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<td></td>
<td>3d. Create and innovate</td>
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<tr>
<td></td>
<td>3e. Work in a digital world</td>
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<td></td>
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</table>

**INFLUENCING FACTORS**
Model of Work performance v2.0

- Technical knowledge, understanding & skills
- Relevant LLN skills
- Values, attitudes, dispositions
- Non-technical knowledge, understanding & skills

CONTEXT
What did we find?

• Only some non-technical skills in a list are ‘mission critical’ in a job role

• The ‘top 3’ question is a helpful starting point
  • Employers and employees in a job role identified ‘the top 3’ quickly
  • Trainers wanted 6 or 7 skill areas
  • Learners wanted 9
  • When Top 3’s compared they did not match

• Does this matter?
Context does matter: e.g. Mission Critical skills in care/support roles

<table>
<thead>
<tr>
<th>Early childhood educator</th>
<th>Aged care support worker (residential)</th>
<th>Disability support worker (community)</th>
</tr>
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<tbody>
<tr>
<td>Connect &amp; work with others (children, peers)</td>
<td>Connect &amp; work with others (clients)</td>
<td>Recognise &amp; utilise diverse perspectives (client)</td>
</tr>
<tr>
<td>Communicate for work</td>
<td>Recognise &amp; utilise diverse perspectives</td>
<td>Connect &amp; work with others (client, client’s support network)</td>
</tr>
<tr>
<td>Work with rights roles &amp; protocols</td>
<td></td>
<td>Identify &amp; solve problems/make decisions</td>
</tr>
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<td>Communicate for work</td>
<td></td>
<td>Plan &amp; organise</td>
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</table>
Example of Mission critical skills profile

**Early childhood educator**

**CONNECTERS**
- Speak & listen - Active listening/questioning (3)
- Build rapport with parents (2-3)

**NON-TECHNICAL ACTIVATORS**
- Build rapport with children (3)
- Collaborate with peers (3)

**TECHNICAL KNOWLEDGE, UNDERSTANDING & SKILLS**
- e.g. Oral communication, non-verbal skills
- ACSF 3

**ATTITUDES DISPOSITIONS**
- Desire to connect with children
- Positive attitude interest in children’s learning

**MODIFIERS**
- Scope of role, legal/regulatory (3)
What else did we find?
Labels aren’t enough

- Two job roles might need the same non-technical skill at ‘label’ level (e.g. problem solving), but at a different level of skill sophistication
- Precision matters: Can only identify this with a 3 tier framework like the CSfW

- Do we need this information?
- Why might this be important for VET teaching, learning and assessment?
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<tr>
<td>Connect &amp; work with others (children, peers) CSfW Stage 3</td>
<td>Connect &amp; work with others (clients) 3/4</td>
<td>Recognise &amp; utilise diverse perspectives (client) 4</td>
</tr>
<tr>
<td>Communicate for work 2</td>
<td>Recognise &amp; utilise diverse perspectives 3/4</td>
<td>Connect &amp; work with others (client, client’s support network) 4</td>
</tr>
<tr>
<td></td>
<td>Work with rights roles &amp; protocols 3</td>
<td>Identify &amp; solve problems/make decisions 3/4</td>
</tr>
<tr>
<td></td>
<td>Communicate for work 3</td>
<td>Plan &amp; organise 3</td>
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But wait, there’s more..
Non-technical skills play 3 different roles

They can be:
1. Activators
2. Connectors, or
3. Modifiers

The same skill can play a different role, depending on context
Activators

• The essential for core tasks — not just ‘nice to haves’
• Help us select and apply technical knowledge and skills to achieve outcomes within a job role
• Without *activators*, knowledge and skills can’t be adapted and applied appropriately in new situations
Activator coverage in qualifications – inconsistent, patchy, major gaps

- Occasionally explicitly codified & assessed - but this was rare
- Often implicit in a competency statement - not formally assessed in own right (although possible to argue the skills was present, trainers seldom discussed or taught strategies)
- Major gaps – often no competency statement that could even remotely be argued to address the mission critical skill concerned.

- Implications for teaching and learning?
Modifiers

• Put limits on action (especially at entry level but relevant in any role)
• Skills individuals need at work to determine scope of responsibility, what they will do, how it will be done, e.g.
  • What rules and regulations do I need to follow?
  • What is my level of autonomy/responsibility for problem solving & decision making?
  • When do I need to escalate this? Who do I need to tell?
• Modifiers usually explicit & assessed in qualifications mapped, but not necessarily clearly connected to learning about the mission critical skill they modified
Connectors

• Non-technical skills we need to operate effectively as a member of an organisation e.g. to build rapport, cooperate & collaborate so we can:
  • draw on the knowledge of others
  • share information
  • combine efforts to get the job done,
  • Feel that we belong & help others feel this way too.

• Coverage - barely mentioned

• In a few qualifications, brief references to active listening and questioning under ‘Knowledge’ but not explicit in competencies
# Impact of context in STEM-rich job roles

<table>
<thead>
<tr>
<th>Activators</th>
<th>CNC operator – Enterprise C</th>
<th>Repair technician – Enterprise B</th>
<th>IT technician Level 1 Enterprise A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan &amp; organise (CSfW 3)</td>
<td>Identify problems/apply problem solving processes (2/3)</td>
<td>Identify problems/apply problem solving processes (3/4)</td>
<td></td>
</tr>
</tbody>
</table>
| Identify & apply problem solving processes solve (task specific) problems (3) | Recognise & respond to task specific protocols (3) | Build rapport with clients (3)  
Connect/collaborate with others in a digital world (peers) (3) |
| Recognise & respond to (task specific protocols) (3)  
Understand, interpret, act (3) | Understand, interpret, act (3) | Understand, interpret, act (3)  
Plan & organise (3) |
| Modifiers | Work with roles & responsibilities (2/3)  
Recognise & respond to (general) protocols (3) | Work with roles & responsibilities (2)  
Recognise & respond to (general protocols) (3) | Work with roles & responsibilities (3)  
Manage risk (3)  
Recognise & respond to general protocols (3) |
| Connectors | Active listening/questioning (3)  
Cooperate and collaborate (2) | Active listening/questioning (3)  
Cooperate and collaborate (2) | Active listening/questioning (3)  
Connect with others in a digital world (2/3) |
Critical underpinning skills

A set of *foundation* skills needed to develop and apply all of these non-technical skills:

- Active listening and questioning techniques (and the confidence to use them)
- Ability to reflect on actions and learn from them
- *Transferability* skills - understandings about the need to adapt and apply skills developed in one context to another, and strategies to get started

Should these be explicitly addressed in every entry-level qualification?
Time to move beyond lists of labels

• Now have a tool to give us a shared language and common reference points
• Basis for fostering explicit teaching, learning and assessment
• Can use CSfW to:
  • define which skills in a list are mission critical and why
  • clarify and align employer, trainer and learner expectations
  • describe them in practice so learners can appreciate what’s expected
  • write explicit competency statements
Introducing a common language

Employer priorities & workplace approach

Learner skills  CSfW  Training emphasis
Implications of this research for you?

• What will you KEEP doing?
• What will you STOP doing?
• What will you START doing?
For more information

Contact Kate Perkins@acer.org

See selection of Mission Critical Skills Profiles attached to this presentation
Mission critical skills profile

Disability support worker - Community context

**CONNECTERS**
- Active listening/questioning (3-4)
- Cooperate with others (3)

**NON-TECHNICAL ACTIVATORS**
- Build rapport with clients (4)
- Recognise & respond to diverse perspectives (3-4)
- Identify & solve problems/make decisions (3-4)
- Plan & organise workload & commitments (3)

**TECHNICAL KNOWLEDGE, UNDERSTANDING & SKILLS**
- Principles of e.g.
  - Person-centred active support
  - Knowledge of relevant area of disability

**ATTITUDES DISPOSITIONS**
- Desire to make connections
- Observational skills

**LLN**
- e.g. Oral communication, non-verbal skills

**MODIFIERS**
- Work with roles & responsibilities (3)
- Respond to communication systems, Practices & protocols (3)
Enterprise A - IT Technician Level 1 - Help desk

Mission critical skills profile

CONNECTERS
- Active listening/questioning (3)
- Connect with others in a digital world (3)
- Cooperate and collaborate with others (3)

NON-TECHNICAL ACTIVATORS
- Identify & solve problems (3/4)
- Build rapport with clients (3)
- Understand, interpret & act (3)
- Connect with others in digital world (3)

TECHNICAL KNOWLEDGE, UNDERSTANDING & SKILLS
- Passion for problem solving
- Attention to detail
- Persistence

ATTITUDES DISPOSITIONS
- e.g. Oral communication
  - ACSF 3

MODIFIERS
- Work with roles & responsibilities (2/3)
- Recognise & respond to general protocols (2)
- Use digitally based technologies & systems (3)
- Manage risk (3)
Mission critical skills profile

Enterprise B - Repair technician

CONNECTERS
Active listening/questioning (3)
Build rapport (2)
Cooperate and Collaborate (2)

NON-TECHNICAL ACTIVATORS
Identify problems (2/3)
Apply problem solving processes (2/3)
Recognise & respond to task specific protocols (3)
Understand, interpret & act (3)

TECHNICAL KNOWLEDGE, UNDERSTANDING & SKILLS
ACSF 3 e.g.,
Interpret SOPs, charts, drawings, calculate

ATTITUDES DISPOSITIONS
Curiosity attention to detail persistence

MODIFIERS
Work with roles & responsibilities (2)
Recognise & respond to general protocols (2)
Mission critical skills profile

Enterprise C - CNC operator

CONNECTERS
Active listening/questioning (3)
Build rapport (2)
Cooperate and collaborate (2)

Plan & organise tasks (3)
Recognise & respond to task specific protocols (3)
Understand, interpret & act (3)
Identify problems (3)
Apply problem solving processes (3)

TECHNICAL KNOWLEDGE, UNDERSTANDING & SKILLS

Organised
Attention to detail
Focused

ATTITUDES DISPOSITIONS

Non-technical activators

LLN

ACSF 3 e.g. Interpret SOPs, charts, drawings, calculate

MODIFIERS
Work with roles & responsibilities (2/3)
Recognise & respond to general protocols (2)
Use digitally based technologies & systems (3)
Manage risk (3)