

Melbourne Assessment

> A new paradigm for assessment of 21<sup>st</sup> Century skills

Webinar for NEQMAP Professor Sandra Milligan July, 2023

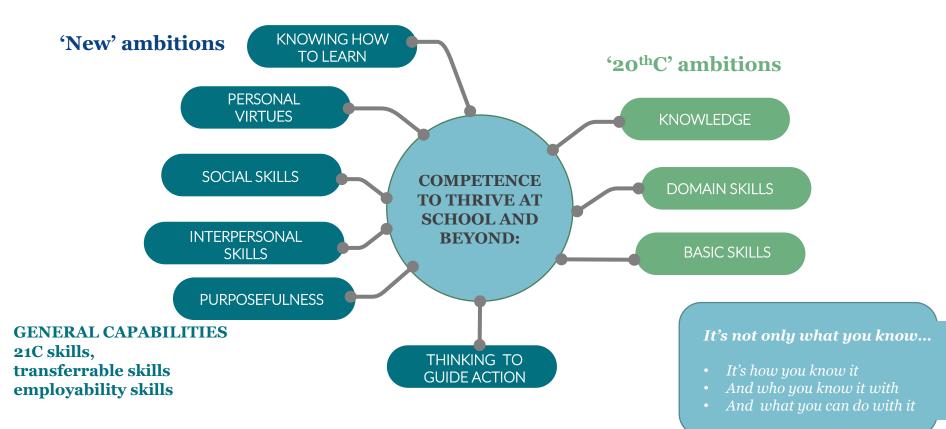
**July 2023** 

### **New Metrics Research Partners**

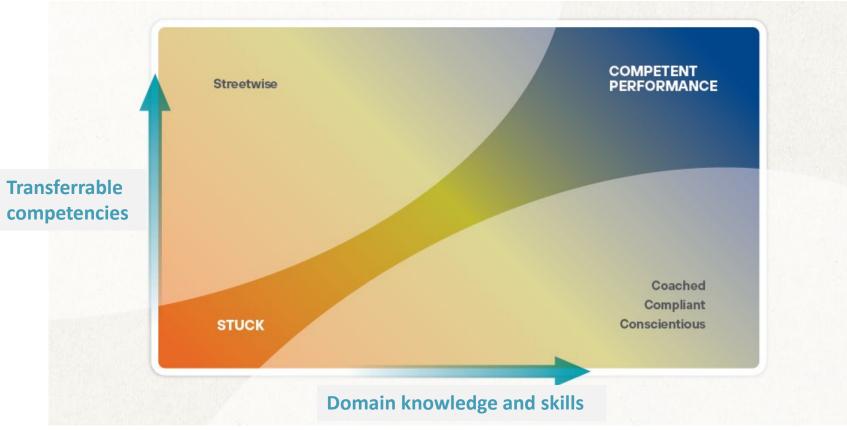




# **Ambitions for learning**



### The development of competence in any domain



### Features of traditional standardised assessments of learning

- focus on cognitive/metacognitive ... silent on social, personal inter-personal skills & values
- mainly written... other forms of valued performance untapped
- removes cultural and social distinctiveness and diversity...can't have DIF
- *construct irrelevant variance' removed ...tasks are simple, artificial, abstract*
- tasks standardised ... no room for harnessing interest, passion or engagement
- tasks short, and individual ... no time for persistence, reflection, or collaboration
- scoring standardised, efficient ... no room for interpretation, or recognition of individuality
- reporting via fine ranking, to discriminate... rather than to develop and celebrate
- learners replicate what machines do...rather than develop what is uniquely human

# Melbourne Assessment's 15 years of R&D...

Develop next generation methods of assessment and recognition of learning

- which provide metrics for the transferrable competencies that support learners to thrive
- that are as robust, scalable and comparable as traditional standardised testing
- and as useful at national and international level
- and that have practical utility for learners, teacher and recruiters

Some features of our next-gen assessment and recognition approach

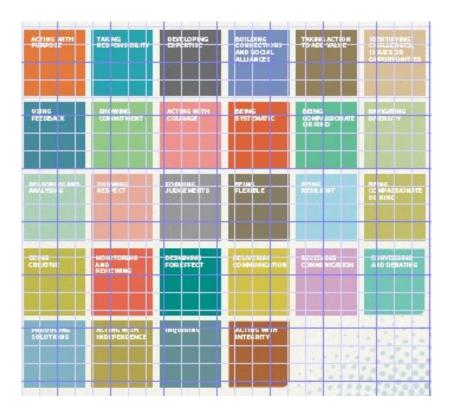


## 1. Focus on competence, not just knowledge

Competence is the capacity to consistently perform to achieve a valued purpose in a domain of interest, using a combination of knowledge and skill, personal dispositions and values, social, interpersonal and intellectual skills, and an orientation towards learning.



## 2. A common language and currency to underpin any framework











New Pedagogies for Deep Learning A GLOBAL PARTNERSHIP









## 3. A developmental approach to assessment

Sandra's Poem

...a process of gathering evidence from a variety of sources showing what a learner is capable of to support a judgment about their position on a scale of competence in a valued domain of learning from less expert to more expert representing what they know and can do and what they need to learn next with a sufficient degree of confidence to support them in their learning and to provide recognition of their attainment that people can trust

Assessment is



# 4. Progressions provide rich, calibrated, empirically verified standards

Level 5	<b>Organising collaborator</b> Learners at this level can perform leadership roles if given opportunities. They reflect on the factors that may influence group decisions and ensure that structures and processes are in place to sustain the work of the team. They motivate others to persevere despite setbacks and ensure that support is available to all team members.
Level 4	Value-adding collaborator Learners at this level perform their work to a higher standard than required and take initiative to raise the work of the group to a similar standard. They perform additional tasks within the role assigned to them, adopt and develop the ideas of other team members, and step in to resolve misunderstandings, helping to achieve consensus.
Level 3	Supportive collaborator Learners at this level perform their work to the required standard, matching their contributions to the goals of the team, and engage with others to help them perform at the same level. They make suggestions, share their knowledge and skills, invite input from others and encourage them to elaborate or build on their ideas to help achieve team goals.
Level 2	<b>Responsible collaborator</b> Learners at this level undertake and complete teamwork without being prompted or reminded. They help with decision-making by responding to the suggestions of others and contribute to group harmony by practicing pakikisama. They try to see issues from different sides and ask questions to increase their understanding of others' viewpoints.
Level 1	<b>Guided collaborator</b> Learners at this level follow instructions and participate in groupwork as required. They engage with other team members, acknowledging their contributions and viewpoints. They may leave decision-making to others or leave work unfinished if not reminded to complete it.

### Teamwork & Cooperation, ALS life skills, Philippines



## 5. Multi stage progressions: line of sight K-12

e.g. Progression structure for learner agency (not to calibrated scale)

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8

7

2

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Closely supervised learning Largly in class Few strangers Short structured tasks Children age 3-7 yrs

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Capacity to choose
Predomninently cognitive syllabus goals

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w prompts. They tend to work on their own, porticipating in organised activities when

Class & school based

Short tasks

ent as set. They use resources they are provided with to meet acquirable, or success as set in

- Close supervision
- Pre-adolescent

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- Class & school -based,
- Long tasks
- Capacity to adapt
- Predomninently cognitive syllabus goals
- Close supervision
- Adolecent and beyond

### The Learner with Agency

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### The Expert learner

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### 2 The Diligent Learner

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#### The Directed Learner

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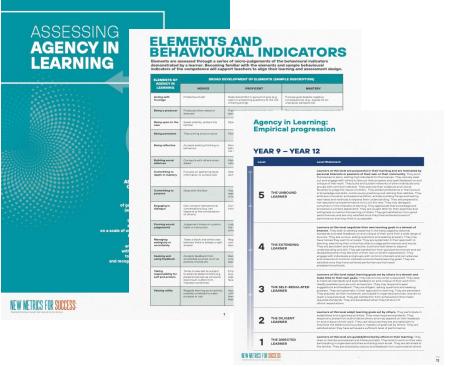
- · Learning in and out of class
- · High level of agency in design
- Complex perfromance goals
- Authentic personalised tasks with unsupervised engagement
- Some ambiguity
- · Diversity in perspectives to be negoatiated
- · Long semi- or unstructured- tasks
- · Adolecent and beyond



# 6. Assessment Packs: helpful for all participants

Components of the Assessment Pack for teachers and learners:

- competence definition
- list of constituent elements, from the common currency
- examples of behaviours that indicate level of competence
- progressions for each age and stage developed and empirically validated
- hints on designing performance tasks



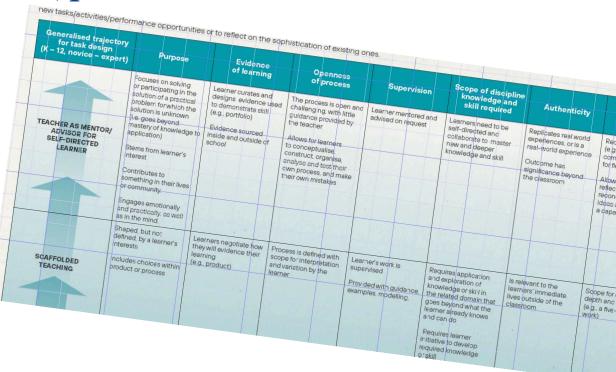
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# 7. Performance tasks design: authentic, complex, relevant, context embedded, provide the evidence base

Standard *features* not *standardised tasks* 

- the assessment task is authentic and complex
- the learner has opportunity to show what they are capable of
- the assessors have opportunity to observed the learner in action





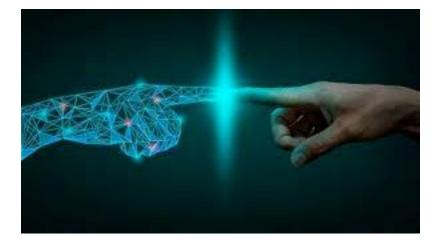
## 8. Assessment tools to support human raters

- Tools focus assessors gaze on relevant easily observed behaviours
- Assessors need to be expert in learner and the context, not the construct
- Diversity in assessor background is an advantage
- Assessors need to know the learner and observe them in an authentic task
- Humans can recognise competence in ways that machines cannot
- Multiple assessments or, over time





9. Scoring base on psychometric and analytic aggregation of results which augment dialogue with raters, establishing a best estimate what the student is truly capable of





### 10. Digital, analytics-based platform to support collaborative assessment using aggregated human judgment

# **Ruby Platform**

anything is possible

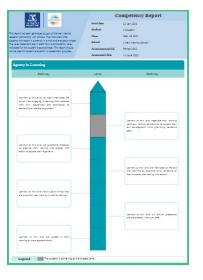
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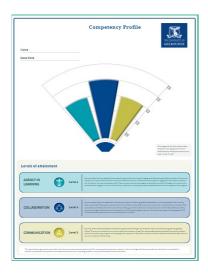
Manages progressions, elements, tools Manages assessment and credentialing processes for schools, systems, assessors and learners Collects and manages assessment data Provides QA feedback/hints for assessors Aggregates results Calibrates results for each learner Generates calibrated reports for each learner, class, school, system, including growth reports Interactive feedback on matters of validity, reliability and integrity

Interfaces with digital credential managers



## 11. Developmental reporting: no pass for fail; formative melds into summative

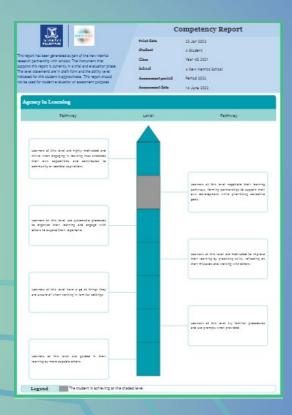








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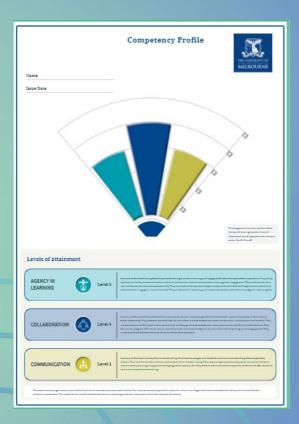
### Classroom Level

### **Formative Assessment:**

- Planning
- Discussions with teams and students

### **Raters:**

- Single teacher
- Student self-assessment (Agency in Learning)



### School/Institution Level

### **Aggregated Summative Assessment**

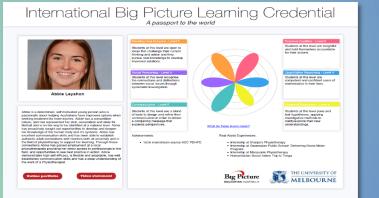
- Semester reporting to students and families
- Learning design reflection

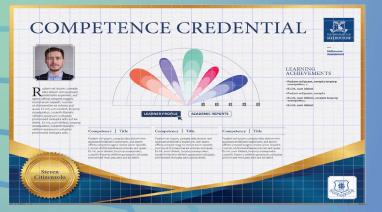
### **Raters can include:**

• Teachers and Community

### **Requirements:**

- Minimum of 2 competencies
- Minimum of 2 ratings per competency





## Credential/ High Stakes Level

### **Beyond the institution**

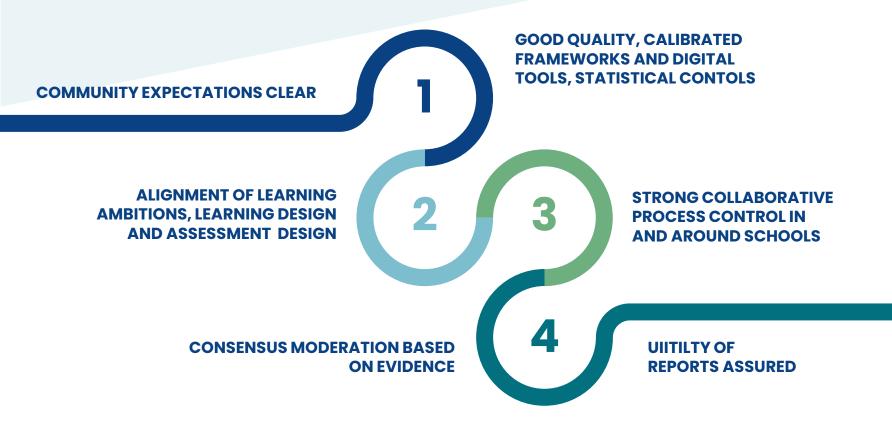
Transitions

### **Requirements:**

- Minimum of 3 competencies
- Minimum of 3 ratings per competency
- Warranting and moderation requirements (e.g., task/evidence collection appraisal, moderation)



# 12. Moderation and comparability (QA) depends on an end-to-end process





# 13. Learner agency is supported

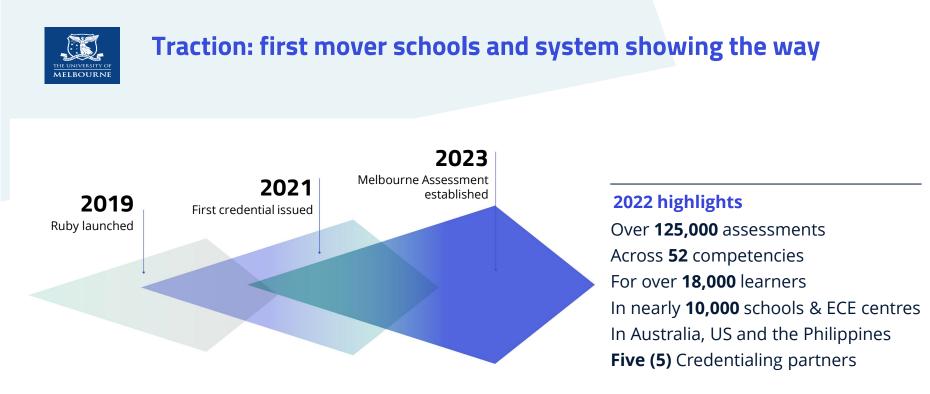
- > Learners understand the competencies, progressions and behavioural indicators
- They develop the language and understanding of competence
- They can help design their own performance tasks
- They can assist raters to understand their performances
- They can assess themselves
- They can assess their peers
- They can decide with whom to share their reports
- They don't fail





# Summary: Next-gen assessment and recognition for next-gen learning

- Focuses on competence not content mastery
- Sets progressive standards, not 'minima', or 'fail'
- Uses 360 human judgement, not objective tests and machines
- Learner known, not anonymous
- **Finds what the learner is capable of,** not just how they compare
- Authentic performances, not standardised tasks
- Displays capability as Profiles, not a rank
- ≻ QA is strong
- Assessment aligned with and embedded in learning, not separate
- Learner has agency
- Robustness and scalability suitable for national (and international) monitoring<sup>24</sup>





# **Questions?**

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