



Next-generation assessment & recognition of learning

**IB Leadership
Symposium, August 2023**

Professor Sandra Milligan

New Metrics Research Partners



Industry Collaborators



Credentialing Partners

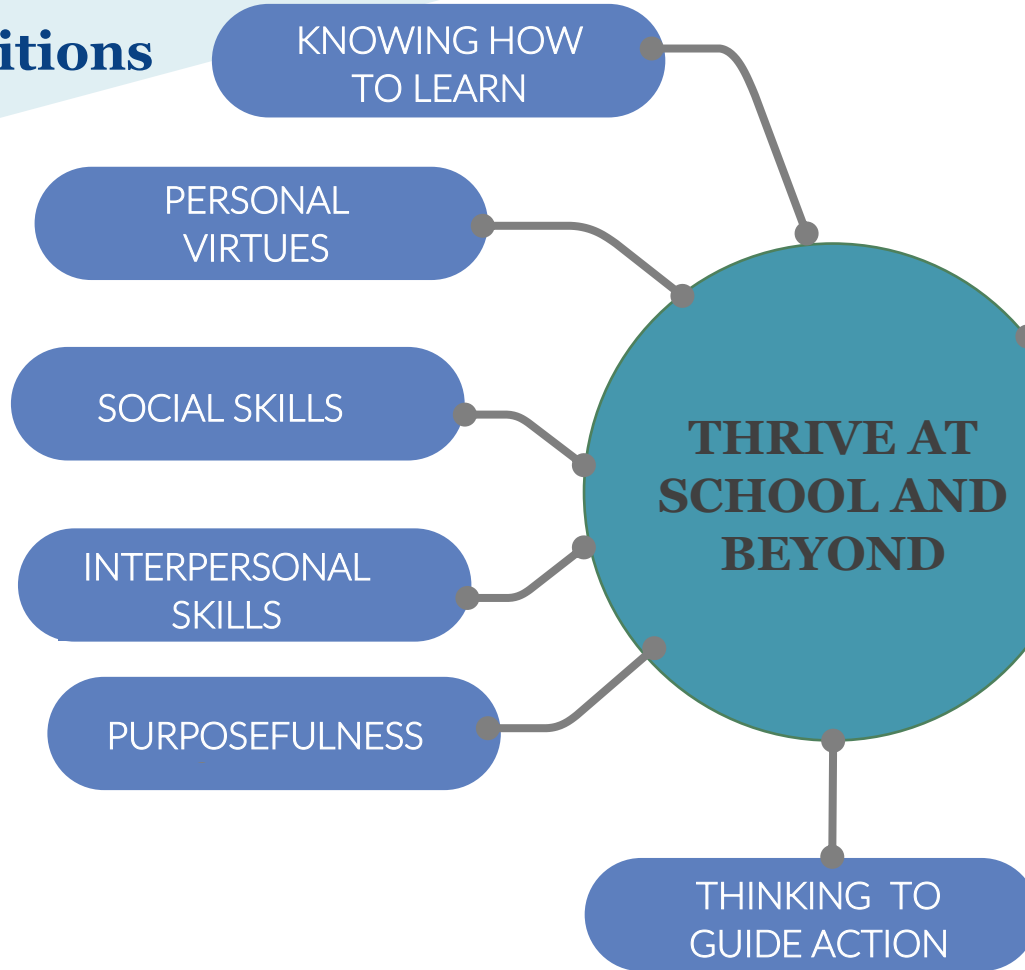




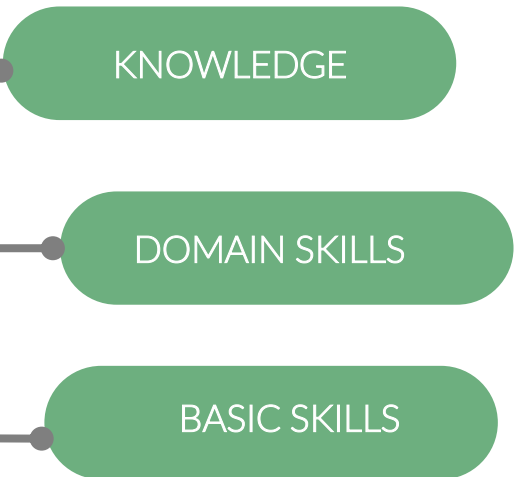
'New' ambitions for learning: the whole child

for students to thrive, flourish

'New' ambitions



Focus of '20thC' ambitions



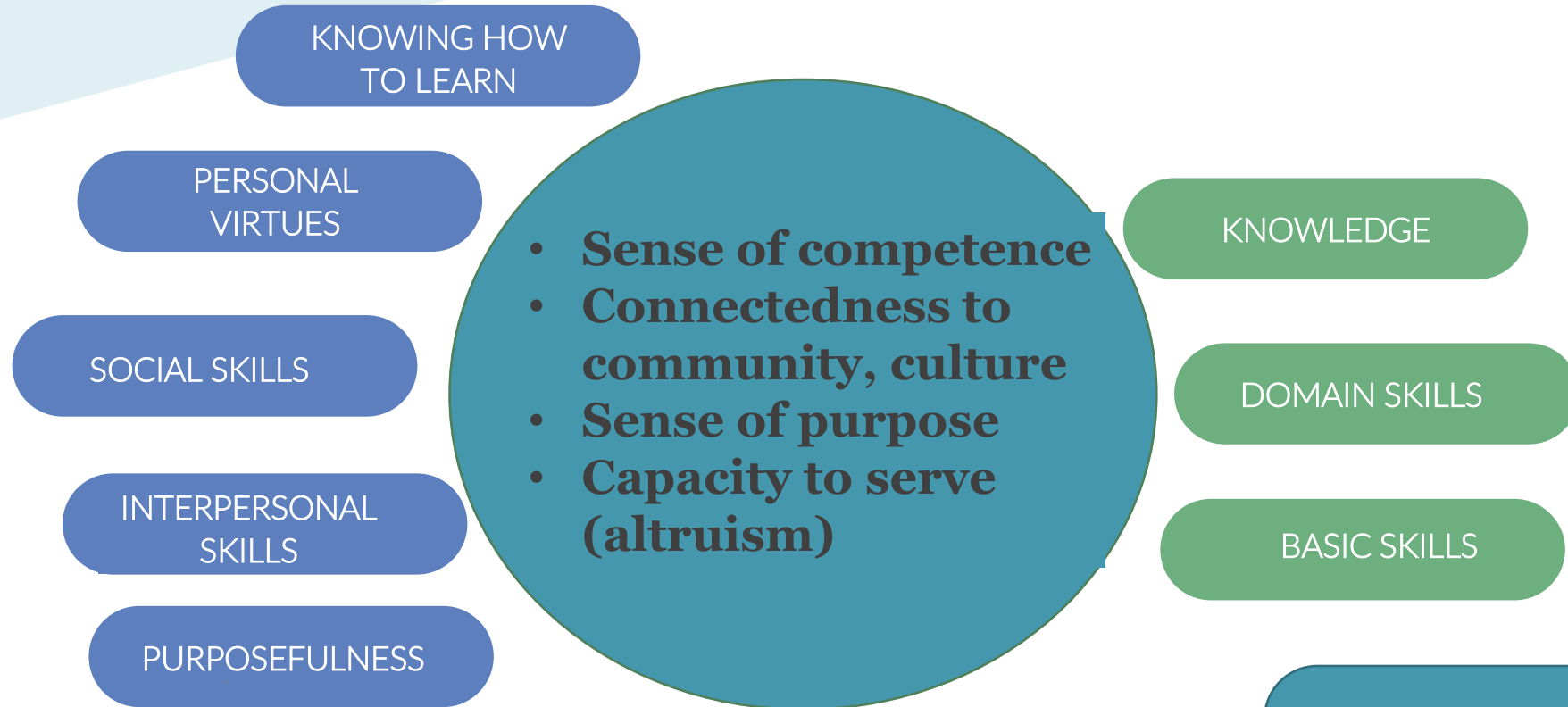
It's not only what you know...

- *It's how you know it*
- *And who you know it with*
- *And what you can do with it*



'New' ambitions for learning: the whole child

for students to thrive, flourish



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IB approaches to learning

Approaches to learning

Our focus on approaches to learning is grounded in the belief that learning how to learn is fundamental to a student's education.

The five categories of interrelated skills aim to empower IB students of all ages to become self-regulated learners who know how to ask good questions, set effective goals, pursue their aspirations and have the determination to achieve them. These skills also help to support students' sense of agency, encouraging them to see their learning as an active and dynamic process.

The same five categories of skills span all IB programmes, with the skills then emphasized in developmentally appropriate ways within each programme. The five categories are:

- **thinking skills**—including areas such as critical thinking, creative thinking and ethical thinking
- **research skills**—including skills such as comparing, contrasting, validating and prioritizing information
- **communication skills**—including skills such as written and oral communication, effective listening, and formulating arguments
- **social skills**—including areas such as forming and maintaining positive relationships, listening skills, and conflict resolution
- **self-management skills**—including both organizational skills, such as managing time and tasks, and affective skills, such as managing state of mind and motivation.

The development of these skills plays a crucial role in supporting the IB's mission to develop compassionate and lifelong learners. Although these skills are interrelated, there are close links and areas of overlap between them.

The development of competence in any domain

General
learning
competencies





The big shift

Students as consumers of set content



Learners as producers of learning, for purpose



The big shift in pedagogy, learning design, and school operation: *‘new grammar of schooling*’*

Traditional:

- Assessment: standardised tests “How good are you?”
- Teacher: imparter of knowledge
- Agency in learning: with system and teacher
- Curriculum: set, aiming for “*coverage*”
- Teaching methods: dominated by class-based explicit instruction
- Homogeneity: aim for class of like-minded, like ability scholars
- Selection: ranking



21st Century

- Assessment: to gauge capacity, and progress to competence :” How are you good?”
- Teacher: facilitator of learning, in and out of school
- Agency: includes learner too
- Curriculum: flex, aiming for *sampling, depth, and engagement*
- Teaching methods: broad repertoire
- Heterogeneity valued: participatory: peer-to-peer, networks process; diversity valued
- Selection: matching

**William Tyack and David Tobin, 1994 ; Jenkins 2009*

Next-gen assessment and recognition

Shifting the gaze to encompass all of what we value in learning

Develop next generation methods of assessment and recognition of learning

- 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, teachers and recruiters

Next-gen assessment and credentialing.....
assessing ALL of what we value

7 features.....

1. Focussed on assessing 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.



Dreyfus and Dreyfus: growth in competence can be observed as qualitative observable shifts/leaps in capacity to perform

Increasing competence



2. Underpinned by common currency, K-12

Many school's frameworks: all defined using a common language and currency about human competence

ACTING WITH PURPOSE	TAKING RESPONSIBILITY	DEVELOPING EXPERTISE	BUILDING CONNECTIONS AND SOCIAL ALLIANCES	TAKING ACTION TO ADD VALUE	IDENTIFYING CHALLENGES, ISSUES OR OPPORTUNITIES
USING FEEDBACK	SHOWING COMMITMENT	ACTING WITH COURAGE	BEING SYSTEMIC	BEING COLLEAGUE OR KIND	INTEGRATING DIVERSITY
DEMONSTRATING AND ANALYSING	SHOWING RESPECT	FORMING JUDGEMENTS	BEING FLEXIBLE	BEING RESILIENT	BEING EMPASSIONATE OR KIND
BEING CREATIVE	MONITORING AND REVIEWING	DESIGNING FOR EFFECT	DELIVERING COMMUNICATION	RECOGNISING CONNECTION	ORGANISING AND DEBATING
PROMULGATING SOLUTIONS	ACTING WITH INDEPENDENCE	INQUIRING	ACTING WITH INTEGRITY		

Combine to generate capability

THE NEW METRICS INITIAL SUITE OF COMPLEX COMPETENCIES

- ACTING ETHICALLY**: Acting in a way that is guided by moral principles (what we ought to do) in any situation.
- ACTIVE CITIZENSHIP**: Contributing to the well-being of a community.
- AGENCY IN LEARNING**: Knowing what to learn, how to learn it and who to learn it from.
- COMMUNICATION**: The ability to transmit, receive and interpret information, share a purpose, feelings and beliefs to support the purposes of the individual or group.
- COLLABORATION**: Working with others to achieve a common goal.
- PERSONAL ATTRIBUTES**: Managing who you are.
- QUALITY THINKING**: Thinking things through to achieve better outcomes for yourself or your group.

SELECT FROM THE OPTIONS BELOW

- Register Students
- View Student Records
- Assign Classes
- Guidance Materials
- Assess Students
- Change Password
- Produce Reports
- Exit

LIVING LEARNING LEADING FRAMEWORK

AC Australian CURRICULUM

Big Picture EDUCATION AUSTRALIA

South Australian Certificate of Education

Swans

New Pedagogies for Deep Learning™ A GLOBAL PARTNERSHIP

ALS Life Skills

Early Years Assessment and Learning Tool

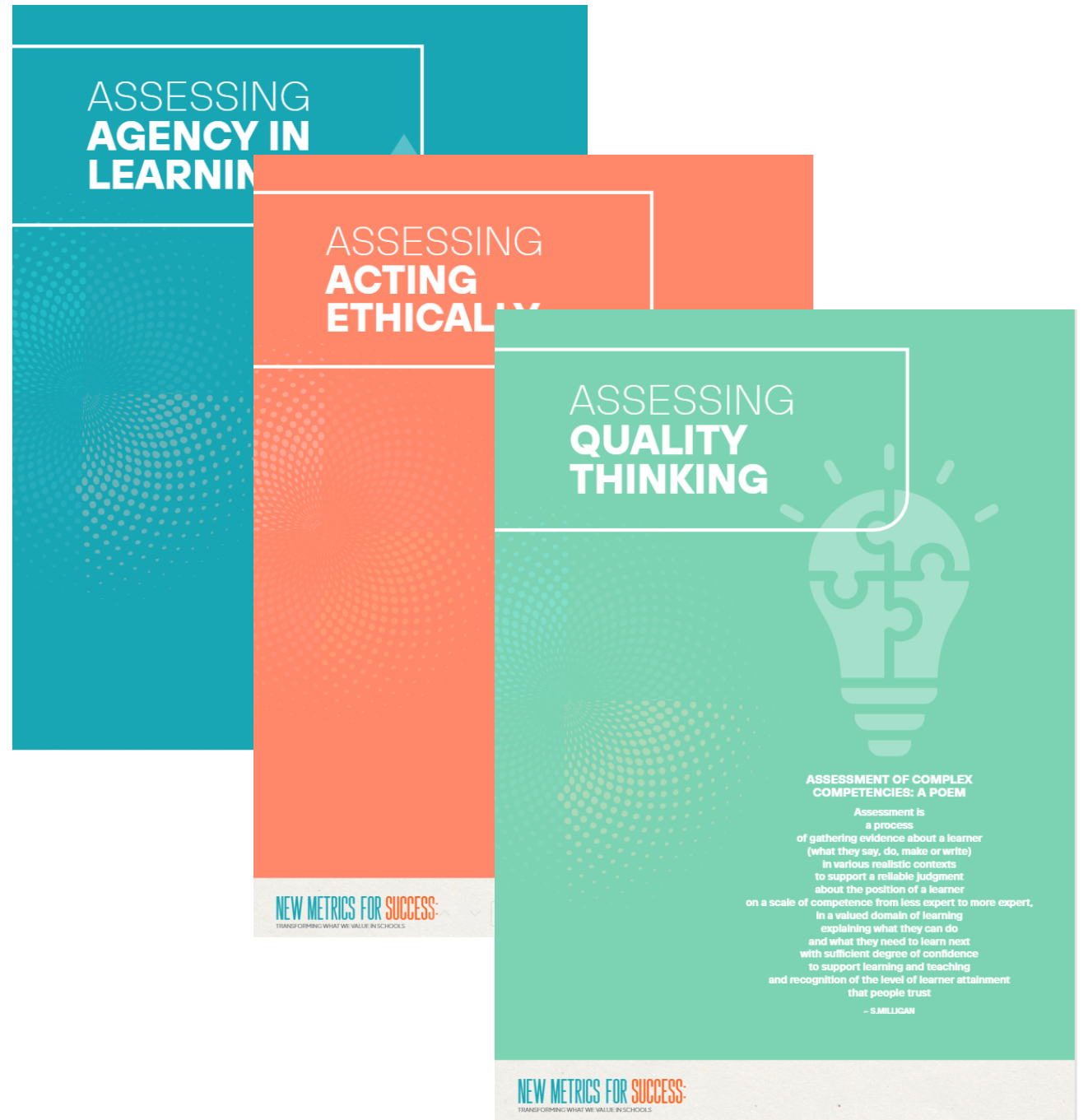
52 competencies to date and growing
125,000 assessment in 2022

The University of Melbourne's
Assessment Research Centre presents



The ELEMENTS: Building blocks of assessing complex competencies

ACTING WITH PURPOSE	TAKING RESPONSIBILITY	DEVELOPING EXPERTISE	BUILDING CONNECTIONS AND SOCIAL ALLIANCES	TAKING ACTION TO ADD VALUE	IDENTIFYING CHALLENGES, ISSUES OR OPPORTUNITIES
USING FEEDBACK	SHOWING COMMITMENT	ACTING WITH COURAGE	BEING SYSTEMATIC	BEING COMPASSIONATE OR KIND	NAVIGATING DIVERSITY
REASONING AND ANALYSING	SHOWING RESPECT	FORMING JUDGEMENTS	BEING FLEXIBLE	BEING RESILIENT	BEING COMPASSIONATE OR KIND
BEING CREATIVE	MONITORING AND REVIEWING	DESIGNING FOR EFFECT	DELIVERING COMMUNICATION	RECEIVING COMMUNICATION	CONVERSING AND DEBATING
PRODUCING SOLUTIONS	ACTING WITH INDEPENDENCE	INQUIRING	ACTING WITH INTEGRITY		



ASSESSING AGENCY IN LEARNING

ASSESSING ACTING ETHICALLY

ASSESSING QUALITY THINKING

ASSESSMENT OF COMPLEX COMPETENCIES: A POEM

Assessment is a process of gathering evidence about a learner (what they say, do, make or write) in various realistic contexts to support a reliable judgment about the position of a learner on a scale of competence from less expert to more expert, in a valued domain of learning explaining what they can do and what they need to learn next with sufficient degree of confidence to support learning and teaching and recognition of the level of learner attainment that people trust

- S. MULLIGAN

NEW METRICS FOR SUCCESS:
TRANSFORMING WHAT WE VALUE IN SCHOOLS

3. Competence captured in a behavioural progressions, empirically verified, defining standards of behaviour

e.g., Teamwork & Cooperation

Level 5	Organising collaborator 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	Responsible collaborator 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	Guided collaborator 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.

4. Assessment frameworks provide behavioural guides for assessors, so they to know what to look for

Progressions define standards; calibrated, empirically verified behavioural indicators appropriate to context; plus tools designed for different context

1.3 Draws on content and context when timing delivery	2.3 Tailors method of delivery to suit circumstances	3.3 Adapts style based on audience reaction to suit circumstances	4.3 Varies language based on audience's reaction	5.2 Redelivers message to confirm understanding		7.3 Customises response to message by considering context	At Level D, a person adapts or tailors their communication method and style to maximise the impact on their intended audience. He/she considers and responds to the audience's needs and reactions and to the circumstances surrounding the context of communication. When communicating a message, they make a judgment about the level of understanding of their audience. They use information gathered through the checking process and re-deliver the message to help their audience reach understanding if required.
	2.2 Matches method to audience, purpose or content of message	3.2 Matches delivery style to audience and context		5.1 Check audience's understanding by asking questions	6.3 Asks questions to seek clarity or confirm understanding	7.2 Addresses key ideas in message	At Level C, a person considers the context and audience when communicating with others. He/she matches their delivery methods and styles (e.g., tone, volume, pace, language) to suit the audience and context. After delivering and receiving a message, they ask questions to seek clarity and confirm understanding.
1.2 Follows instructions and protocols			4.2 Uses a recognised standard language within an organisation		6.2 Repeats or rephrases message received to check understanding		At Level B, a person starts to demonstrate consideration of the audience and context. In delivering messages, he/she tends to follow set protocols or policies and considers recognised standards within the organisation. They check their own understanding after receiving a message by repeating or rephrasing the message received.
1.1 Delivers message without consideration of timing	2.1 Delivers message as instructed	3.1 Uses delivery style that is comfortable to self	4.1 Uses the same language style across different contexts		6.1 Acknowledges message (verbally or non-verbally)	7.1 Replies to message without consideration	At Level A, a person reacts and responds to communication situations. He/she tends to use a single or default method of delivery when communicating, without considering the audience or context. They typically acknowledge others' responses and respond when prompted or instructed.
<i>1. Times delivery of message to recipient</i>	<i>2. Selects method of delivery (e.g., email, phone call, face-to-face)</i>	<i>3. Selects delivery style (e.g., tone, appearance, volume, pace, etc.)</i>	<i>4. Selects appropriate language</i>	<i>5. Checks whether intended message was communicated</i>	<i>6. Checks own understanding after receiving a message</i>	<i>7. Responds to message received</i>	
Delivers message					Receives message		

5. Digital assessment instruments for teachers, peers, learners to underpin quality and consistency

- Each student is assessed by multiple assessors, (including learners)
- Assessors observe learners in authentic task in different contexts to develop a 360, standards based view of level of competence
- Assessors need to be expert in **learner** and the context, not the construct
- Diversity in assessor background is an advantage
- Digital tools scaffold the judgement and provide QA support

Ruby Platform



Humans recognise competence in ways that machines cannot



6. Reporting via profiles (and supporting portfolios), formative & summative developmental; no pass or fail; profiles success; formative melds into summative

International Big Picture Learning Credential

A passport to the world



Abbie Leyshon

Abbie is a determined, self-motivated young person who is passionate about her field. She has demonstrated her skills in various settings including her placement in a hospital. She has a competitive nature and has represented her school in various sports. She is a highly motivated individual who is always looking for ways to improve herself. She has a strong understanding of the human body and its systems. She has excellent communication skills and has been able to communicate effectively in order to deliver a comprehensive patient care plan. She has a strong understanding of the human body and its systems. She has excellent communication skills and has been able to communicate effectively in order to deliver a comprehensive patient care plan.

Student portfolio **Video statement**

Priority Skills - Level 3

Students at this level are open to new ideas, they think, they act and they pursue their knowledge to develop improved solutions.

Global Awareness - Level 4

Students at this level recognise the connections and relationships between social issues through systematic investigation.

Communication - Level 5

Students at this level use a blend of face-to-face, digital and text communication in order to deliver a comprehensive patient care plan. They have a strong understanding of the human body and its systems. They have excellent communication skills and have been able to communicate effectively in order to deliver a comprehensive patient care plan.

Achievements

- 1st in mainstream course IBCS PEPPE

Priority Grades - Level 5

Students at this level are insightful and hold themselves accountable for their actions.

Identified Learning - Level 5

Students at this level are confident and confident users of mathematics in their lives.

Global Awareness - Level 4

Students at this level pose and test hypotheses, applying investigative methods to corroborate their new understandings.

Real World Experiences

- Knowledge of Shapiro's Physiology
- Knowledge of Oxidation Pulse School - Delivering Great Music Program
- Knowledge of Macquarie Physiology
- Humanitarian Social Action Trip to Tonga

Competency Report

Print Date: 23 Jan 2023
 Student: A Students
 Class: Year 6G 2021
 School: A New Horizons School
 Assessment period: Period 2022
 Assessment date: 14 June 2022


This report has been generated as part of the New Horizons report generation system. The information that appears in this report is current in date and accurate. The level of competence is in draft form and the ability level indicated for this student is approximate. This report should not be used for student selection or assessment purposes.

Agency in Learning	Level	Pathway
Students at this level are highly motivated and demonstrate engagement in learning that includes their own exploration and application in community service activities.		Students at this level negotiate their learning pathway, having pathways in regard to self-advocacy and planning activities.
Students at this level use systematic processes to explore their learning and engage with others to expand their repertoire.		Students at this level are motivated to improve their learning by planning, acting, reflecting on their mistakes and learning with others.
Students at this level have a go at all things they are assigned or interested in before settling.		Students at this level are motivated to improve their learning by planning, acting, reflecting on their mistakes and learning with others.
Students at this level are guided by further processes and use prompts when possible.		Students at this level are motivated to improve their learning by planning, acting, reflecting on their mistakes and learning with others.
Students at this level are guided in their learning by more explicit others.		Students at this level are motivated to improve their learning by planning, acting, reflecting on their mistakes and learning with others.

Legend: The student is achieving at the shaded level.

Competency Profile

Name: _____
 Test Date: _____




Levels of attainment

Agency in Learning	Level
AGENCY IN LEARNING	Level 3
COLLABORATION	Level 4
COMMUNICATION	Level 3

COMPETENCE CREDENTIAL

Steven Cittizolo




LEARNER PROFILE **ACADEMIC REPORTS**

Competency Title	Competency Title	Competency Title
Agency in Learning: Students at this level are highly motivated and demonstrate engagement in learning that includes their own exploration and application in community service activities.	Collaboration: Students at this level negotiate their learning pathway, having pathways in regard to self-advocacy and planning activities.	Communication: Students at this level are motivated to improve their learning by planning, acting, reflecting on their mistakes and learning with others.

Sam Crevi

SACE Learner Profile



Collective Engagement **Personal Enterprise**

Principled Action **Quality Thinking**

Self-Motivated Learning



7. Learner agency is supported in assessment

- 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
-



7. Utility is the key

- For learners, day to day and in transition
- For teachers
- For school leaders
- For recruiters and selectors





Next-gen assessment and recognition

Sandra's Poem

...a **process**
of gathering evidence
from a **variety** of sources
In which the learner shows what they are **capable** of
In **complex** domains of learning
to support a **considered judgment**
about their position on a **scale** of **competence**
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 attainments
that people can **trust**

Some further topics: the state of the nation...

Challenge for school leaders

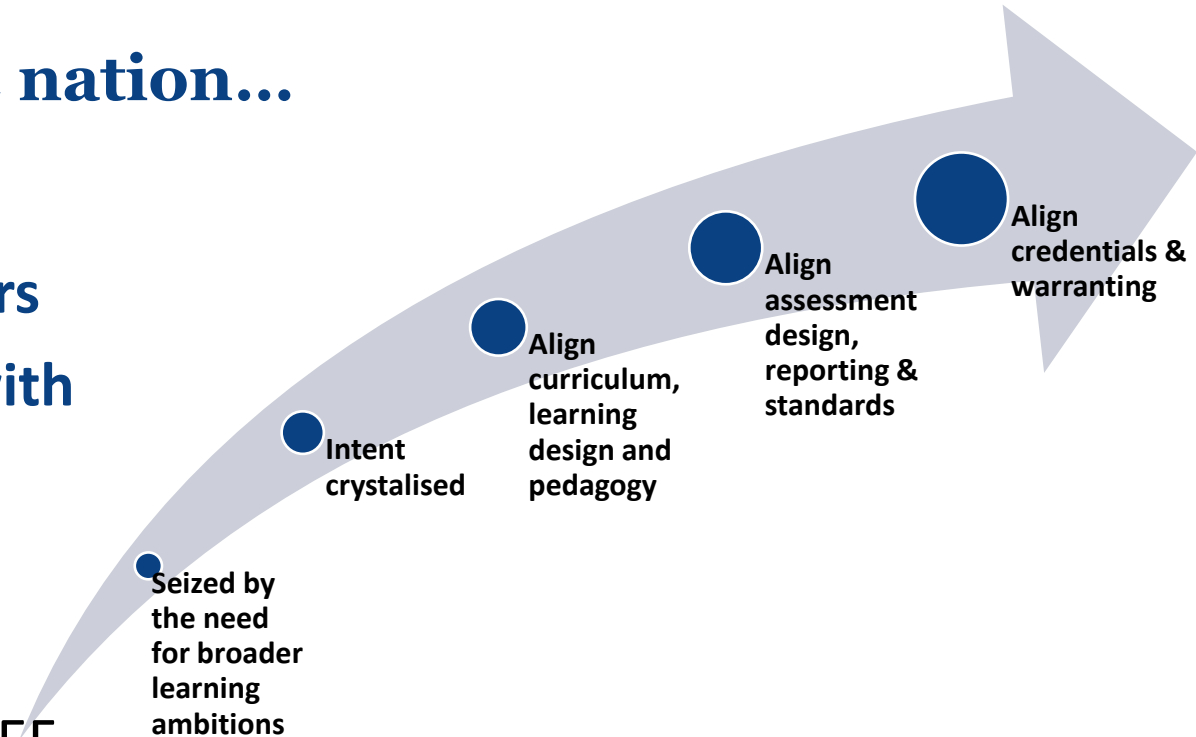
- Takes time: reform happens over many years
- Key leadership by first movers in schools, with higher purpose too
- Not one size fits all

System support

- **Limited** Exceptions e.g., SACE, VC VM, UNICEF, EYALTS, SWANS/ABLES
- **Significant structural innovation outside the systems**

E.g.: Melbourne Assessment credentials Yrs 6, 10, 12; IBPLC;

Tertiary admissions developments promising



Get involved...

- Free online PL for schools
- Join the Melbourne Assessment Community
- New Metrics Research Partnership (by invitation)
- R&D partnerships by negotiation e.g., NPDL; YCA
- Jurisdiction participation (e.g SACE)

THANK YOU

Some reflections for leaders
