



Rethinking Assessment in VET

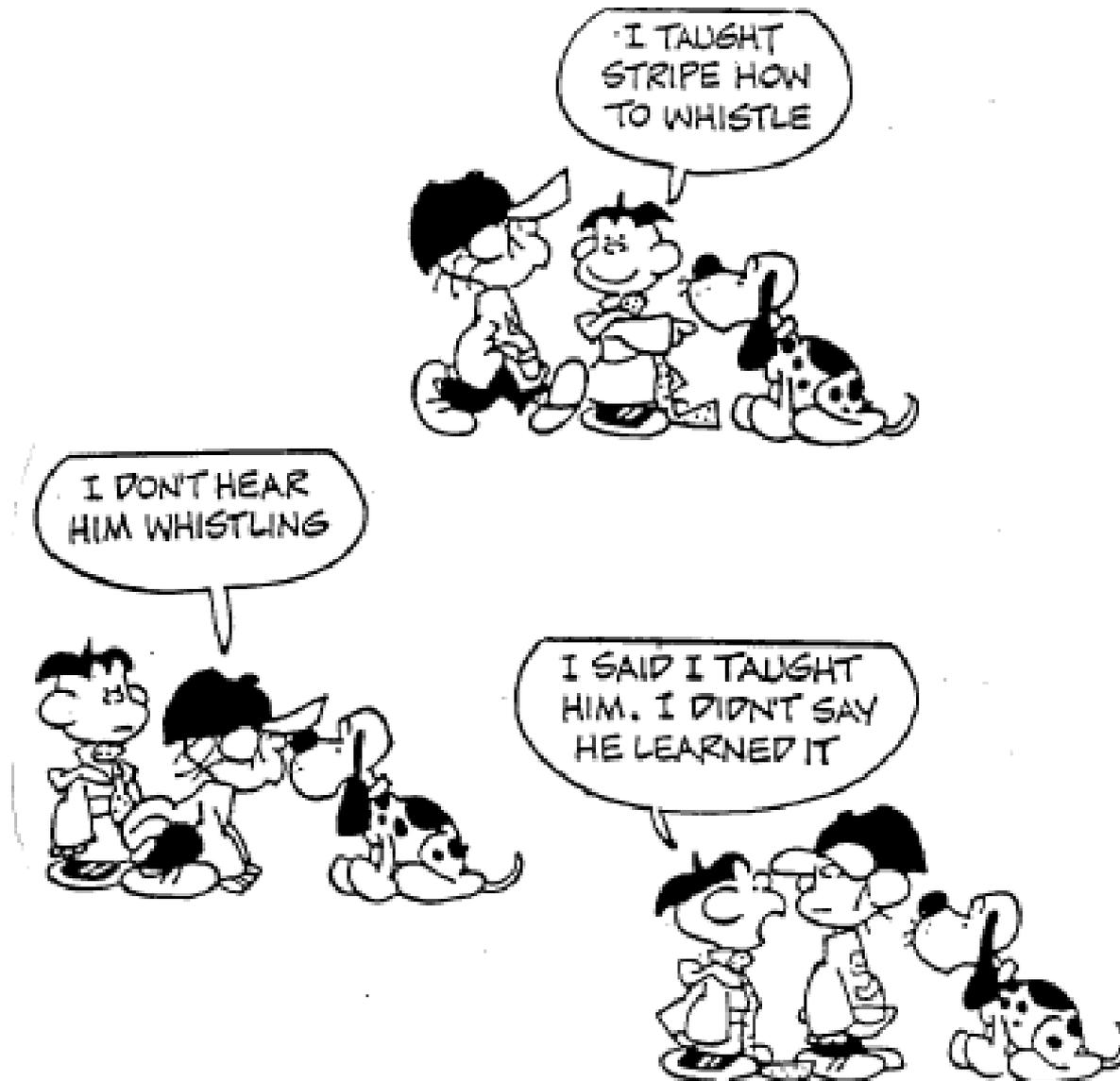
Dave Tout, ACER

- The purpose of education and training
- The purpose of assessment
- Why do we need to rethink assessment in VET?
- Some thoughts about moving forward

Proximate purpose of education and training

- All education systems should be predominately focused on the proximate purpose of education – student learning and student outcomes
- The quality of learning must be a measureable aspect of system quality in addition to more traditional measures of inputs and outputs.
- But what role does assessment play and why rethink assessment?

ACER The purpose of assessment?



Assessment is crucial for learning and teaching purposes

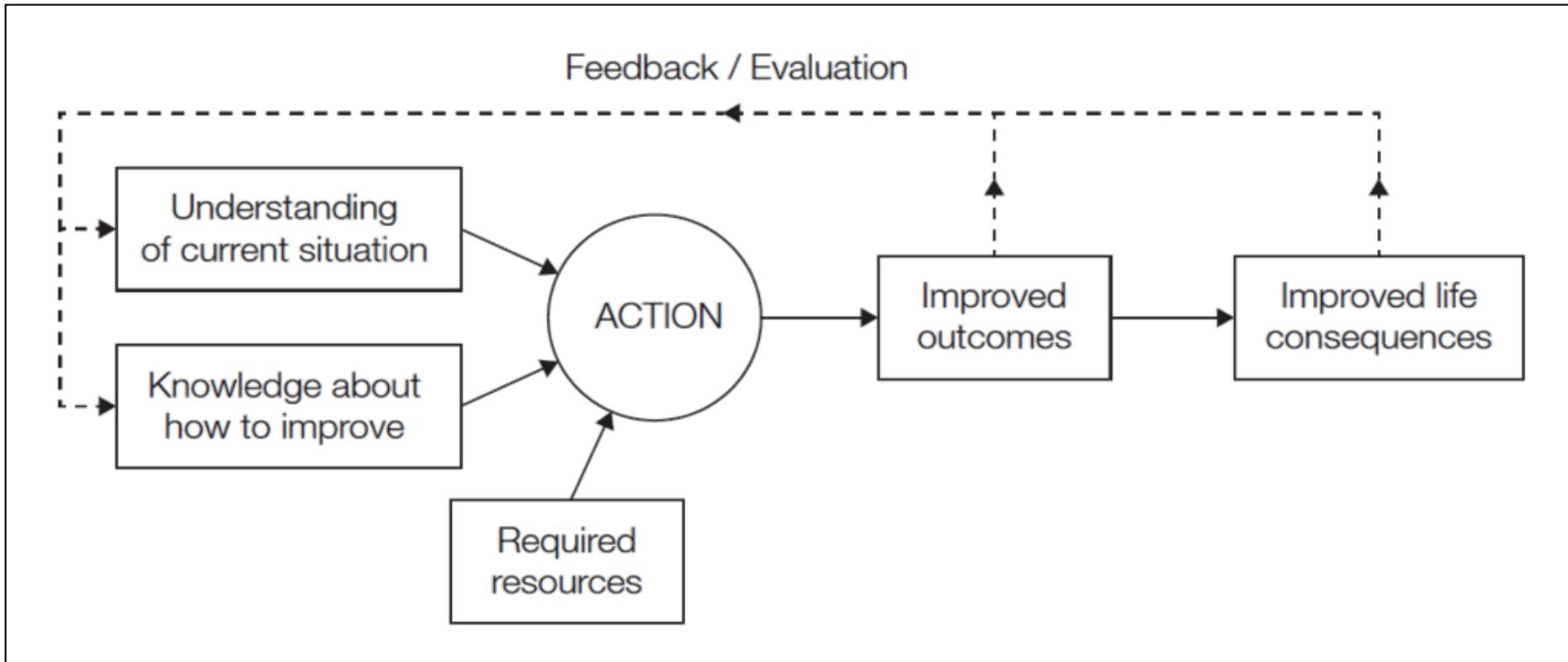
- All good teaching requires assessment – acting on evidence about what learners know and need to know - assessment for learning
- Unfortunately assessment can be seen as the “bad boy” of education and training – but it is not a dichotomy of pedagogy versus assessment – they are partners and assessment is crucial to effective learning and teaching

Assessment is crucial for learning and teaching purposes

- Assessment = Feedback for Teachers = Teachers as Evaluators = Making Learning Visible (John Hattie)
- Developing and having access to a range of assessment instruments and tools that can identify and assess skills and knowledge helps to describe what people CAN do and whether they are COMPETENT or not.

- The fundamental purpose of assessment is to establish where learners are in their learning at the time of assessment.
- a 'decision making loop' with a feedback or evaluation phase which builds the teacher's knowledge about effective practices and required resources for action in the future.

ACER The purpose of assessment?



➤ Masters: <http://research.acer.edu.au/aer/12/>



The purpose of assessment?

Gordon Commission

on the Future of Assessment in Education (USA 2013)

From

TEACH → LEARN → ASSESS

to

ASSESS → TEACH → LEARN

Emphasis on *formative assessment* at the beginning of, and throughout, a teaching/learning sequence:

- identify specific gaps or needs
- monitor development of skills and understandings
- differentiate instruction

<http://www.gordoncommission.org/index.html>

Effective interventions

- John Hattie reviewed thousands of studies about what works best in the teaching/learning process.
- “*Visible Learning* means an enhanced role for teachers as they become evaluators of their own teaching. Visible Teaching and Learning occurs when teachers see learning through the eyes of students and help them become their own teachers”.

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Effective interventions

Hattie calculated the relative effect sizes for different types of interventions as:

$(\text{test group score} - \text{control group score}) \div \text{standard deviation}$

- with values above 0.5 being a medium effect and above 0.8 a strong effect
- some easy interventions are very effective
- some expensive interventions are not particularly effective
- some popular interventions are ineffective

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Most effective interventions/factors

- Self-reported grades = 1.44
- Formative evaluation = 0.90
- Teacher credibility in eyes of students = 0.90
- Acceleration = 0.88
- Feedback = 0.73
- Teacher-student relationships = 0.72
- Spaced practice = 0.71
- Teach meta-cognitive strategies = 0.69
- Teacher professional development = 0.62
- Phonics instruction = 0.60

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Least effective interventions/factors

- Watch more than 10 hours TV per week = -0.18
- Move schools a lot = -0.10
- Gender classes = 0.12
- Ability grouping = 0.12
- Team teaching = 0.19
- Class size = 0.21
- Individualised instruction = 0.23
- Homework = 0.29

Current VET focus is on:

- data collection and analysis in regard to enrolments, costs, completions and employment outcomes
- monitoring, compliance and risk management
- a QA system driven by a regulatory, auditing process based around having comprehensive records and documents incl. of validation and moderation processes

Current VET assessment practice:

- focuses on summative aspects of CBT
- little emphasis on assessment for learning (formative) assessment practices
- little emphasis on looking at or collecting empirical evidence about the quality of teaching and learning outcomes

In other recent research about literacy, there were some interesting conclusions drawn:

“Moreover, for all the broad education levels studied here, income increases with literacy skills. ... Qualifications or credentials are not all-important in determining labour market outcomes. ... The evidence here is that individual skills are remunerated in the labour market. Since the labour market seems capable of distinguishing the most skilled or productive within each education group and rewarding them accordingly, education and training qualifications need to continue to provide individuals with improved skills such that they provide an income payoff and are worth undertaking. The education and training system itself needs to ensure that quality standards are maintained, since individuals will only be prepared in the long run to undertake those courses of study and training that provide real improvements in their skills.”

Jenny Chesters, Chris Ryan, Mathias Sinning: NCVET report on The returns to literacy skills in Australia

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There has been ongoing research about assessment in VET. For example, Dickson & Bloch, 1999; Booth 2000 reported that in VET the key questions about CBA included:

- the need for grading of results
- the need to assess knowledge as well as skills
- concern about quality and consistency of assessment systems and competency standards.

In another example, the OECD, 2008 recommended re VET in Australia:

- the need for a broader range of quality and outcome data
- consistency in standards should be achieved through a common assessment procedure to determine whether the necessary skills have been acquired.



Why rethink assessment?

And we can revisit our first NALLNAC in 2012.
Robert Bluer, 2012:

From 5.53 to 6.46

Back to this conference and its theme and key 21st century skills?

The National Foundation Skills Strategy for Adults states:

- The importance of strong foundation skills in a modern, knowledge-based society is well established. These skills underpin workforce participation, productivity and social inclusion.
- People with higher LLN skills are more likely to be employed, participate in their community, experience better health and engage in further training.
- The link between numeracy, literacy and problem solving skills and the central use of technology in contemporary communication means that foundation skills are increasingly important for effective participation in modern workplaces and contemporary life.

Back to this conference and key 21st century skills?

The National Foundation Skills Strategy for Adults:

- A move away from low-skilled work to greater knowledge-based work has increased the need for workers with good LLN skills.
- The need for individuals to continually build and adapt their foundation skills for new contexts, technologies and purposes means that these skills extend beyond the entry-level skills required to obtain employment and enter the workforce.
- Foundation skills are increasingly important for effective participation in modern workplaces and contemporary life.

Back to this conference and key 21st century skills?

Actions? In *No more excuses*, the Industry Skills Councils proposed:

- better identification of the LLN skills of learners before training, and targeted funding to address identified LLN skill gaps
- the inclusion of clear advice on LLN skill requirements in Training Packages and/or their companion volumes
- the implementation of a strategy to develop greater national awareness of LLN issues, including the de-stigmatisation of LLN skill development
- an increased capacity in the VET system, and all practitioners, to support the LLN skill development needs of learners and workers
- better-targeted solutions for building the LLN skills of workers/learners.

Using data more effectively to enhance 21st century skill development in VET

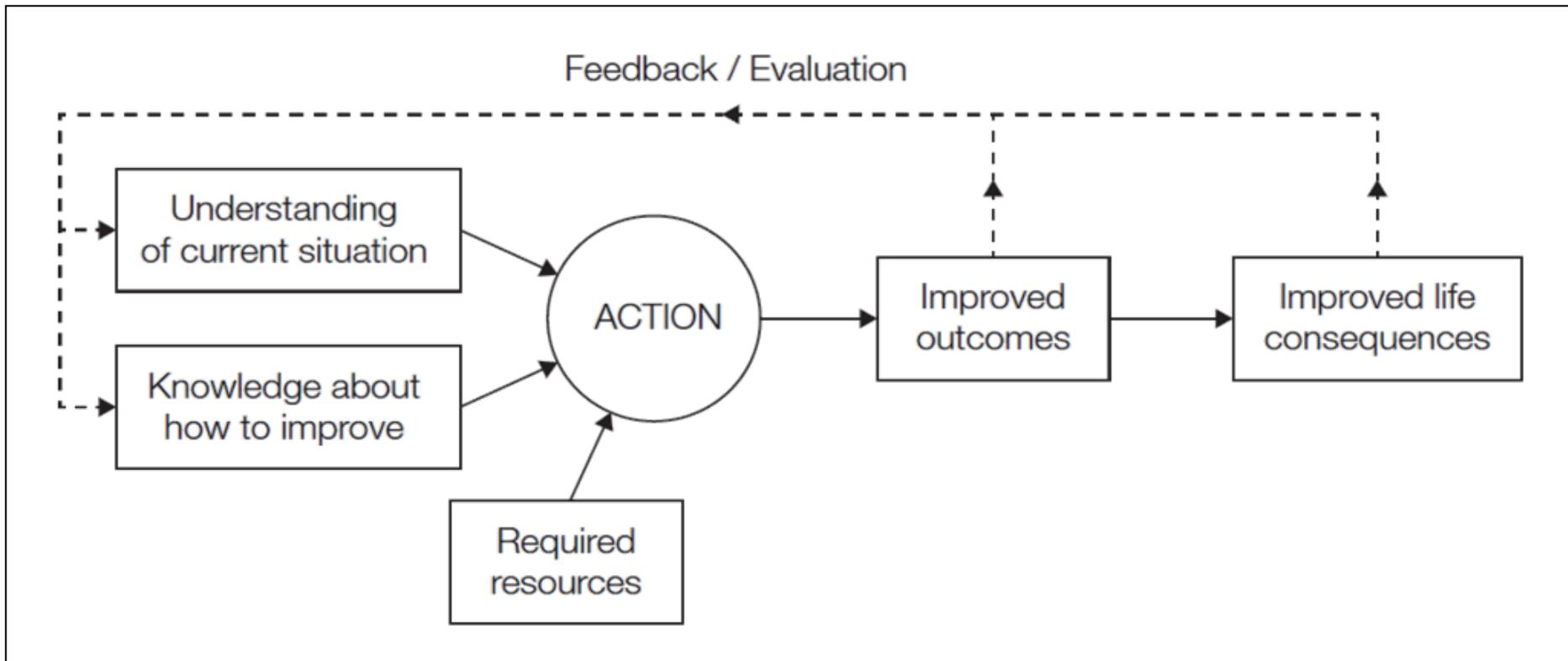
- How can evidence of broader learning outcomes, such as core skills and other 21st century skills, be collected?
- How can evidence of broader learning outcomes be used to improve teaching and learning outcomes for individual students?
- How can evidence of broader learning outcomes be used to monitor progress and evaluate program effectiveness at an institution and system level?
- How can the VET workforce be better prepared to assess and teach broader learning outcomes?

How can evidence of broader learning outcomes, such as core skills and other 21st century skills, be collected?

- Use of the Australian Core Skills Framework (ACSF)
- Use of the new Core Skills for Work Framework
- But there are challenges in their use – need expertise
- Need to be able to track and monitor progress over time – not rely on PIAAC every 10 years
- Need to make available valid and reliable assessment tools

How can evidence of broader learning outcomes be used to improve teaching and learning outcomes for individual students?

- Assessment for learning



How can evidence of broader learning outcomes be used to monitor progress and evaluate program effectiveness at an institution and system level?

- Need measurement models that provide valid and reliable evidence of student learning and allows for fair and valid comparisons over time
- Assess over time progress from generic to context specific skills and knowledge
- Evidence of students' core skills can play an important role in planning, resourcing and delivery
- Ongoing assessment of students' core skills achievement can be used to monitor the effectiveness of specific strategies

How can evidence of broader learning outcomes be used to monitor progress and evaluate program effectiveness at an institution and system level?

- At the system level, governments and policymakers can use evidence of student learning outcomes to assess the success of broader strategies and programs
- At the institution level, can provide comparisons and measuring progress against system-wide standards and incorporate continuous improvement cycle practices
- Include in the cycle a reflection on student and employer feedback.

How can the VET workforce be better prepared to assess and teach broader learning outcomes?

- A critical issue for improving learning outcomes in VET is the capacity and skills of the VET workforce
- For trainees and employees to have access to high quality education and training, they need to be taught by well-trained teachers and trainers
- Evidence suggests significant gaps in the VET workforce in relation to both teaching and assessment
- TAE revamped and more options available – but support and encouragement is required for up skilling and raising standards

How can the VET workforce be better prepared to assess and teach broader learning outcomes?

- More Higher Ed involvement (again) in VET teacher training and research
- AWWPA Recommendation 6.3: national body and program be established, based on the model of the Office for Learning and Teaching, to drive excellence in VET teaching, learning and assessment and more?

Conclusion

- If we want to see improvements in the quality of learning outcomes of students in the VET system, we must address the challenge of collecting and using quality data on student learning outcomes, including empirical data, and on support for the VET workforce to be upskilled in formative assessment practices
- Further research about what works, or not, in VET
- A good starting point would be to properly address the demand for better data, better training and better outcomes around foundation skills based on the ACSF and the new Core Skills for Work.

References for Hattie's work

- The best source is Hattie's book:
Visible Learning and the Science of How We Learn John Hattie and Gregory C. R. Yates
- The *Visible Learning* website is:
<http://visible-learning.org/>
- A 2007 slideshow by John Hattie:
<http://www.slideshare.net/richardcookau/john-hattie-effect-sizes-on-achievement>
- A blog summary of some key interventions (school focus)
<http://www.minnisjournals.com.au/educationtoday/article/Effect--356>
- A local VET sector commentary:
<http://www.vetcentre.vic.edu.au/research-and-reports/entry/teaching-practices-with-the-biggest-effects-on-student-achievement>