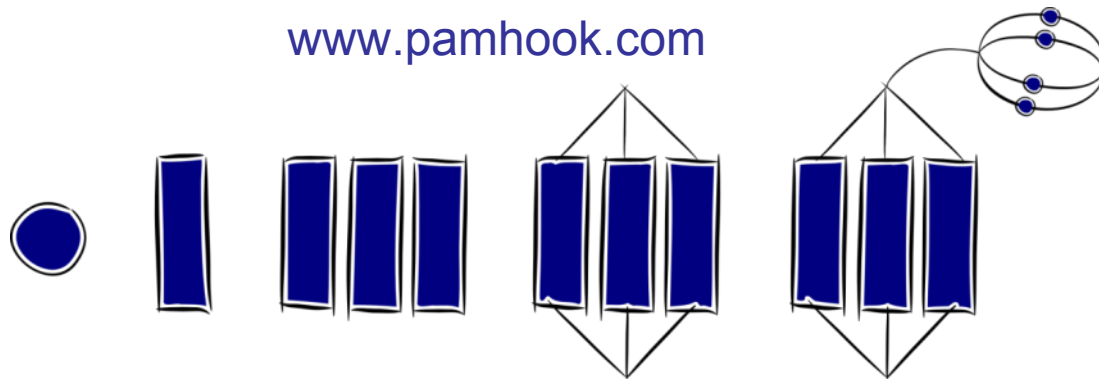


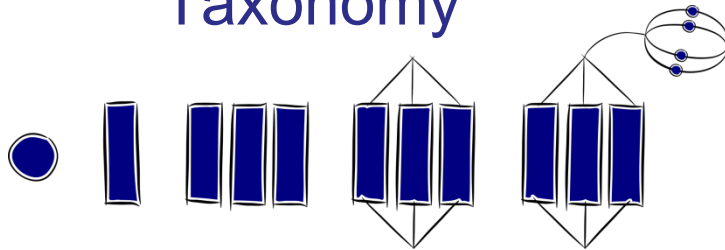
# Where to next when introducing SOLO Taxonomy and HOT Maps.

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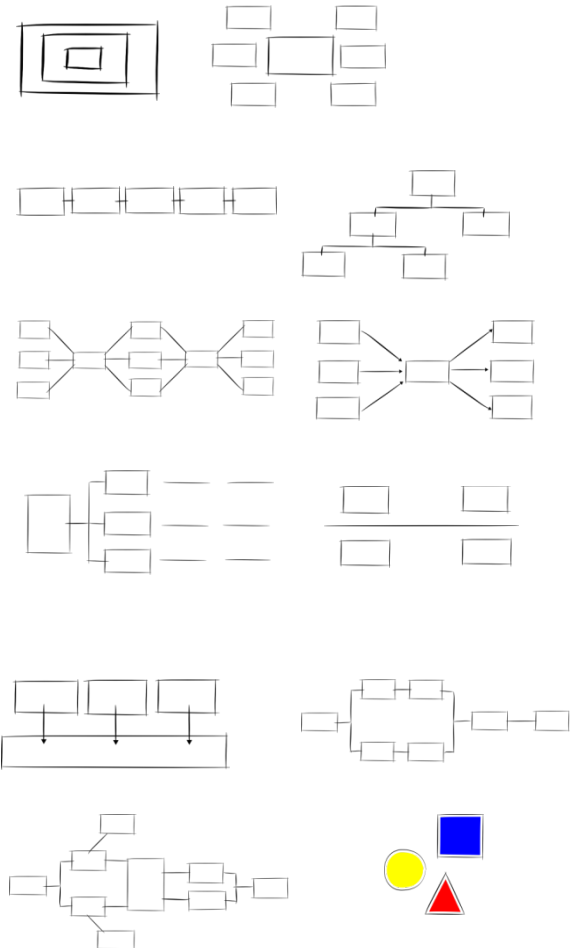


For schools using SOLO Taxonomy and HOT Maps to meet expectations in BES #4 and BES #7.

## SOLO Taxonomy



## HOT Maps



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# Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis Iteration (BES).

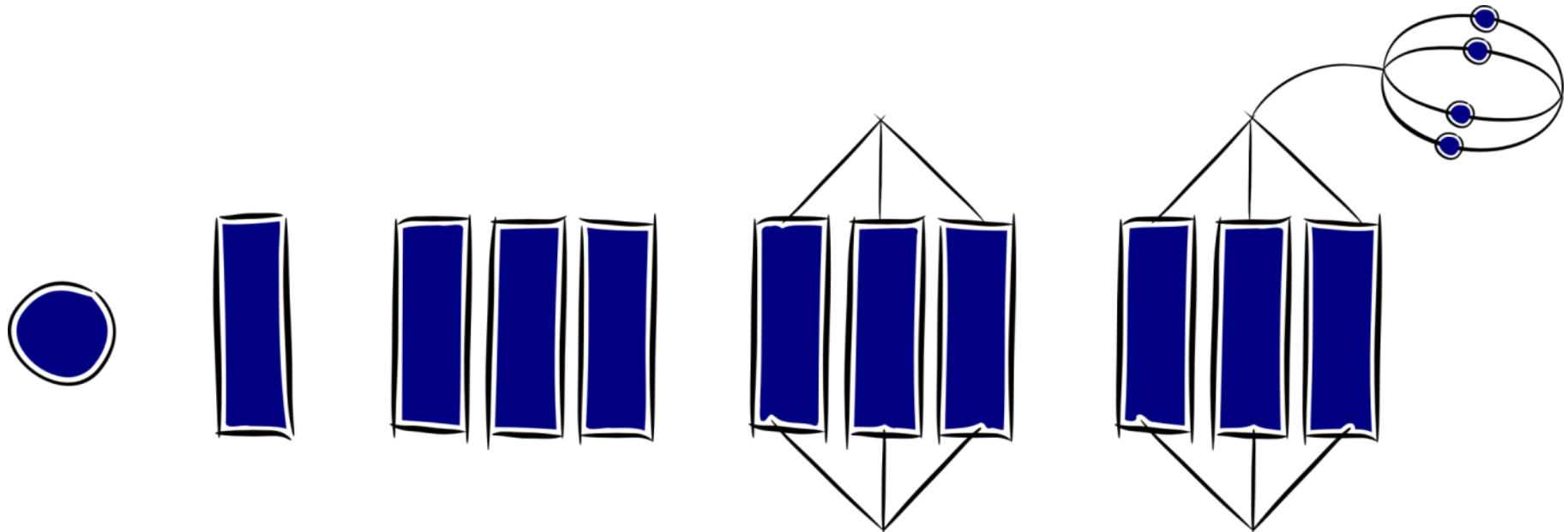
Ministry of Education Alton-Lee 2003

BES # 4. Quality teaching is responsive to student learning processes. Alton-Lee 2003 BES

*Teachers have knowledge of the nature of student learning processes in the curriculum area, can interpret student behaviour in the light of this knowledge and are responsive, creative and effective in facilitating learning processes.*

# SOLO Taxonomy - Biggs and Collis 1982

## The **S**tructured **O**verview of **L**earning **O**utcomes



# Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis Iteration (BES).

Ministry of Education Alton-Lee 2003

BES # 7. Curriculum goals, resources including ICT usage, task design, teaching and school practices are effectively aligned. *Alton-Lee 2003 BES*

*Whole school alignment enables a common language, teacher collaboration and reflection and other synergies around improving teaching.*

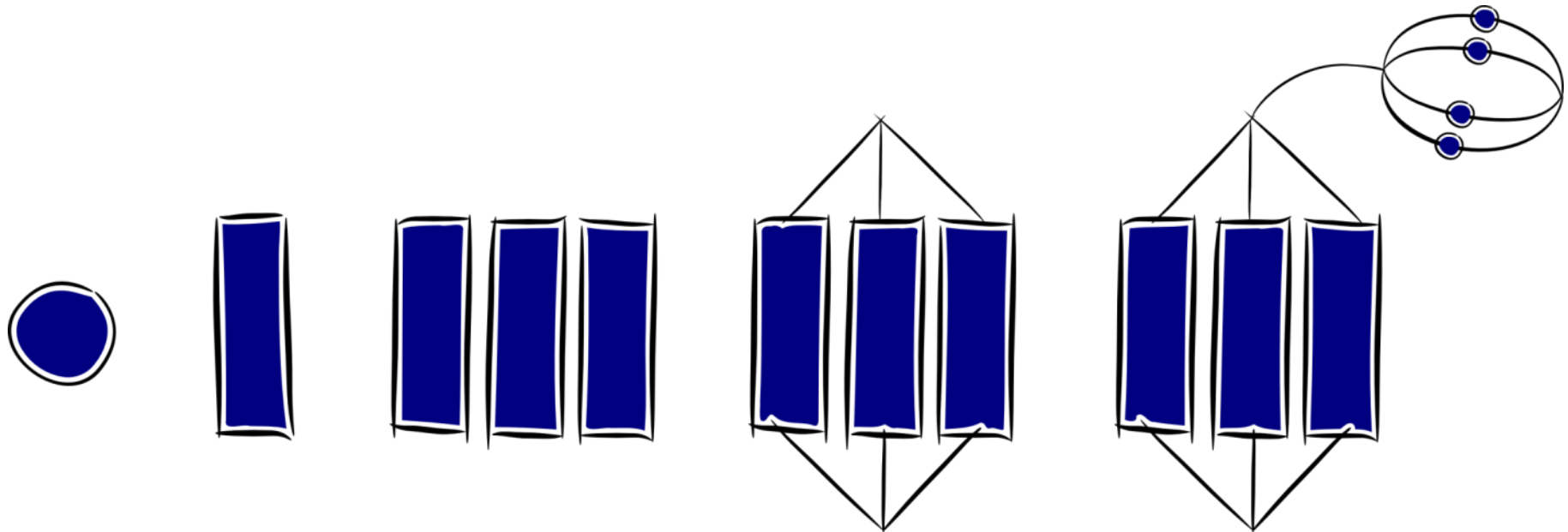


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# SOLO Taxonomy - Biggs and Collis 1982

## The **S**tructured **O**verview of **L**earning **O**utcomes



# After Senge 1990

**Commitment:**

**Enrolment:**

**Genuine Compliance:**

**Formal Compliance:**

**Grudging Compliance:**

**Noncompliance:**

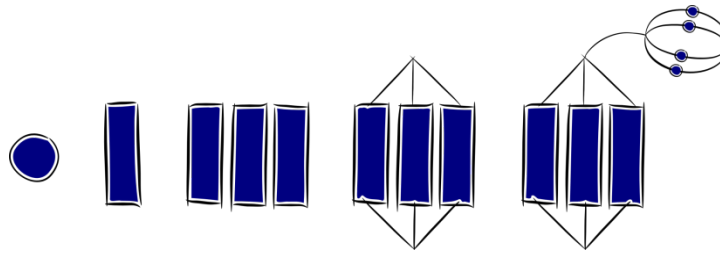
**Apathy:**

Neither for or against vision.  
No interest. No energy.  
“Is it four thirty yet?”

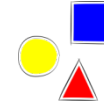
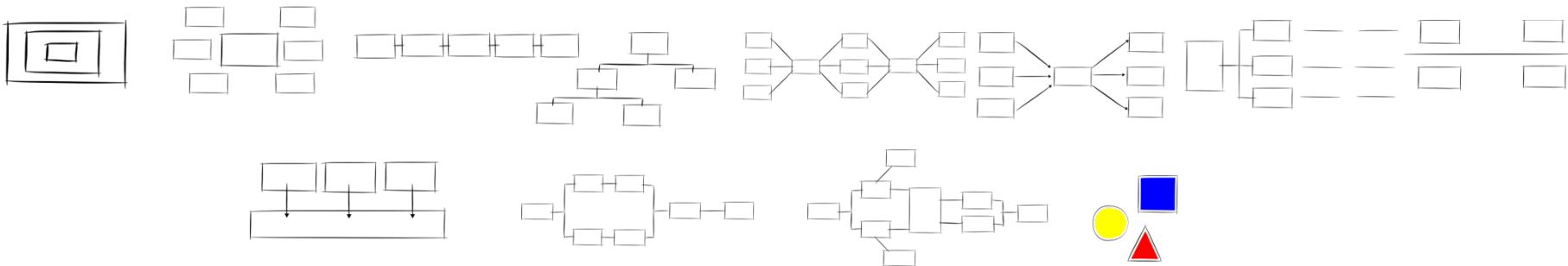


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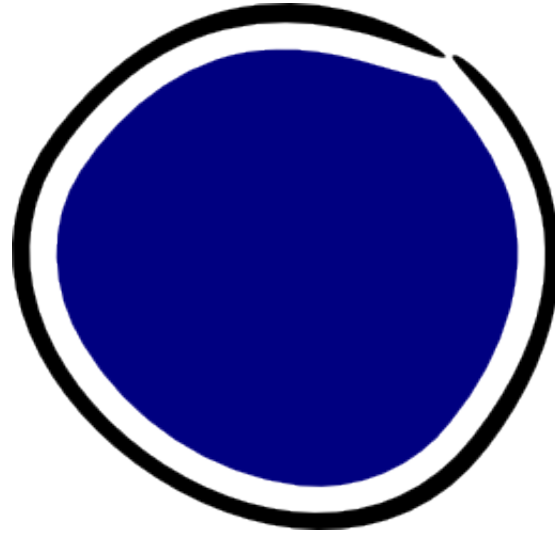
# How well are you implementing SOLO Taxonomy and HOT Maps?






# SOLO PRESTRUCTURAL:

Learning outcomes show unconnected information, no organisation.

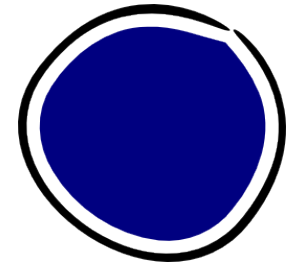


*“E.g. “I need help to introduce SOLO Taxonomy as a common language for student understanding of learning outcomes.”*



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*Is SOLO use in your classrooms something you have yet to get around to?*



## ***What you see in the classroom:***

No visible evidence of SOLO symbols or HOT  
SOLO coded Maps and self assessment rubrics  
in the classroom



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## ***What teachers say:***

"I really don't have the time to deal with SOLO Taxonomy anyway."

"Using SOLO Taxonomy and HOT SOLO Maps is the least of my problems this term. Have you seen my class roll?"

"Using SOLO Taxonomy gets in the way of what I am supposed to be doing in literacy and numeracy."

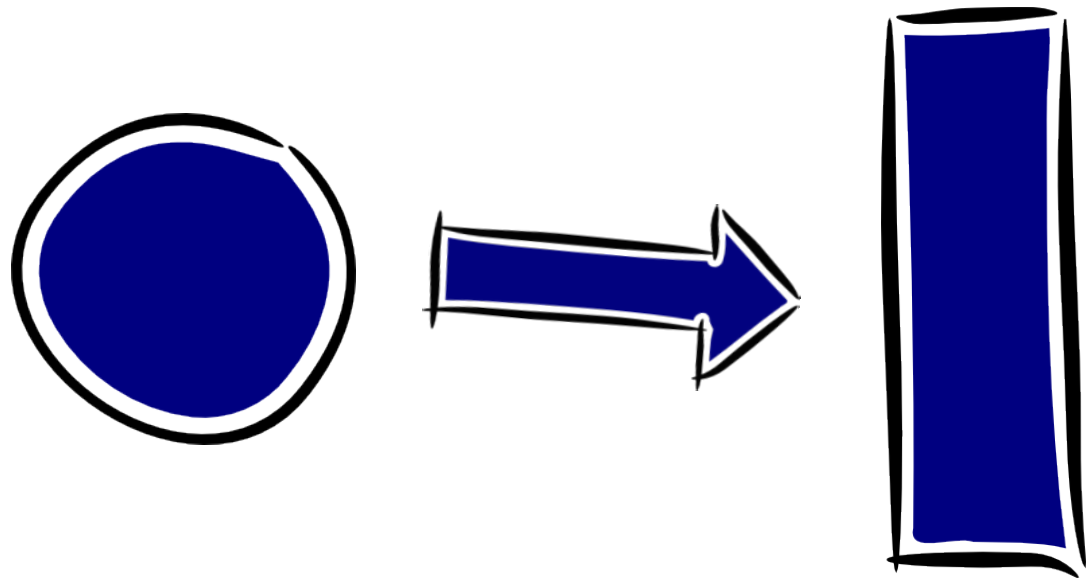
"I am still waiting for someone to copy and laminate the HOT SOLO coded maps and self assessment rubrics for my classroom wall."



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# Where to next:

For teachers with **pre-structural learning outcomes.**

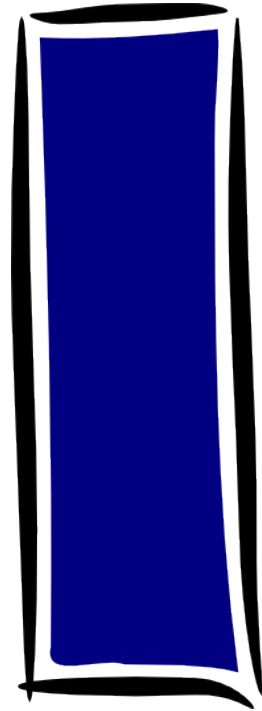


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# SOLO UNISTRUCTURAL:

Learning outcomes show simple connections but importance not noted.

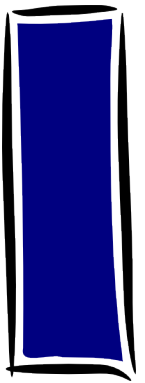


*“I will give it a go.”*



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Are you using SOLO Taxonomy because you have been asked to?

Can you explain why they are using the HOT Maps in terms of intended learning outcomes?



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## ***What you see in classrooms:***

HOT SOLO Coded maps and rubrics are used by teachers during the lesson. They are introduced to students with no explanation of their learning outcome or their purpose.



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## ***What teachers say:***

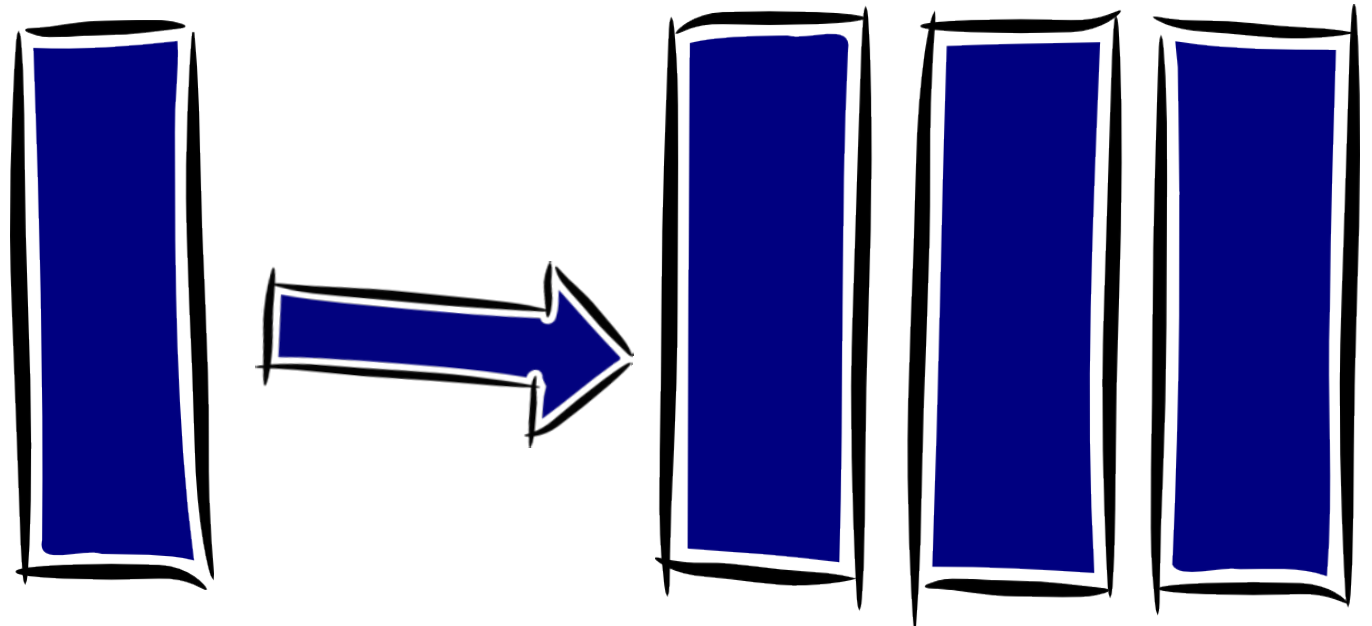
"These SOLO coded maps and rubrics are great. I can snap shot what they know at the beginning of the topic and then find out how much they have improved at the end.



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# Where to next:

For teachers with **unistructural** learning outcomes.

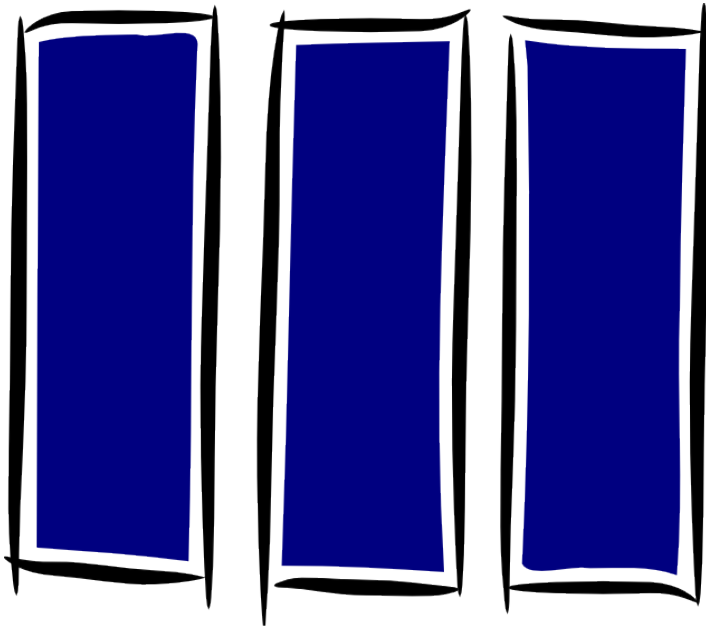


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# SOLO MULTISTRUCTURAL:

Learning outcomes show connections are made, but significance to overall meaning is missing.

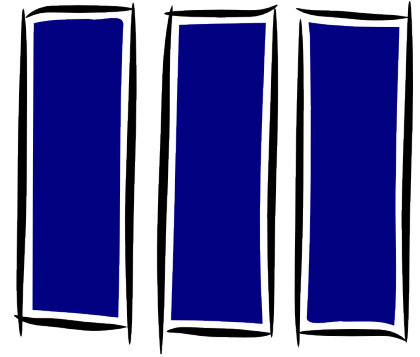


*“I use them on a trial and error basis”*



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Is your focus on HOT SOLO coded map  
use rather than the connection with  
student learning outcome?

## ***What you see in classrooms:***

There is greater emphasis on the SOLO coded map use than student understanding of the learning outcomes.

e.g. "My students' project used the HOT Compare and Contrast Map. The topic was the "Treaty of Waitangi".

## ***What teachers say:***

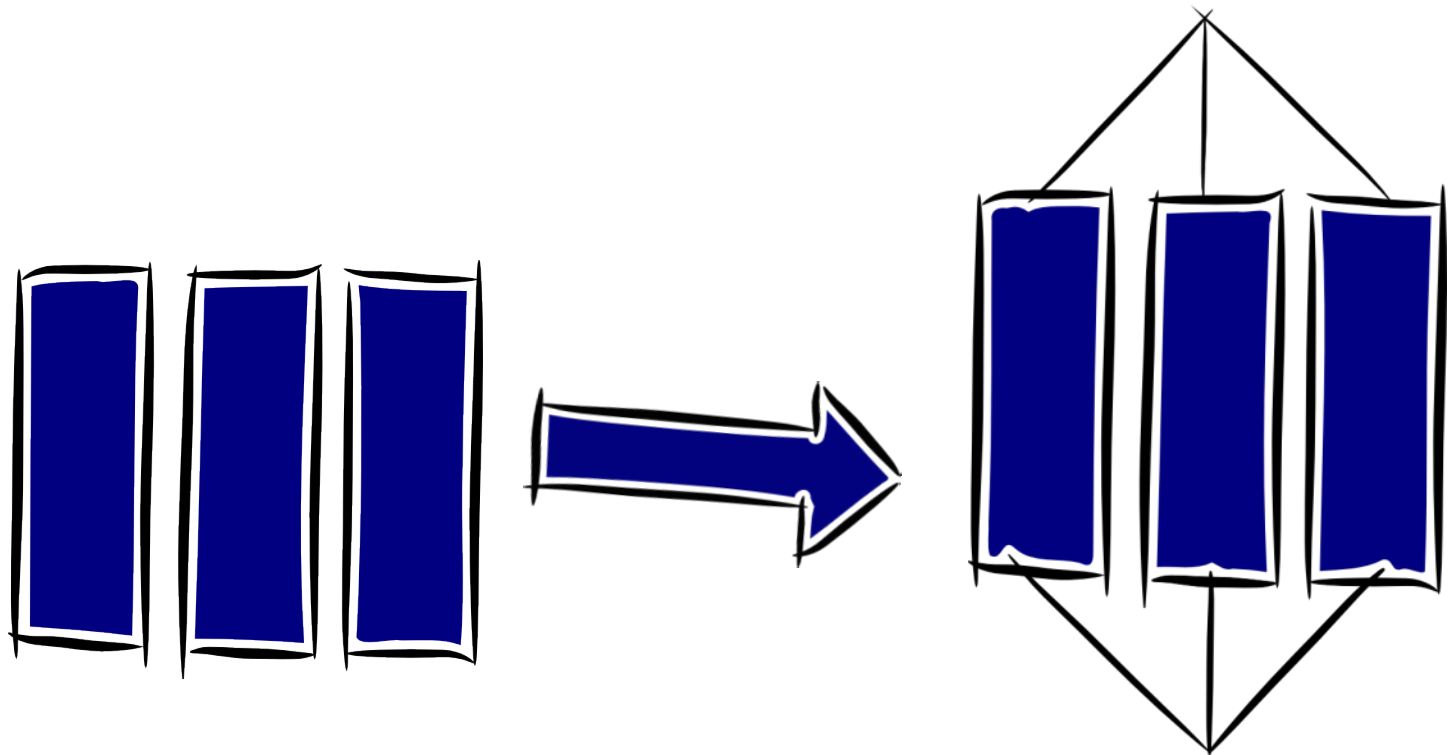
"My students have used a number of SOLO coded Maps during the year. Some of their SOLO coded maps are very well completed"

"My students have put their SOLO coded maps on the class wiki."

"We are running a syndicate meeting focused on our use of the SOLO coded maps this month."

# Where to next:

## For teachers with **multi-structural** learning outcomes.

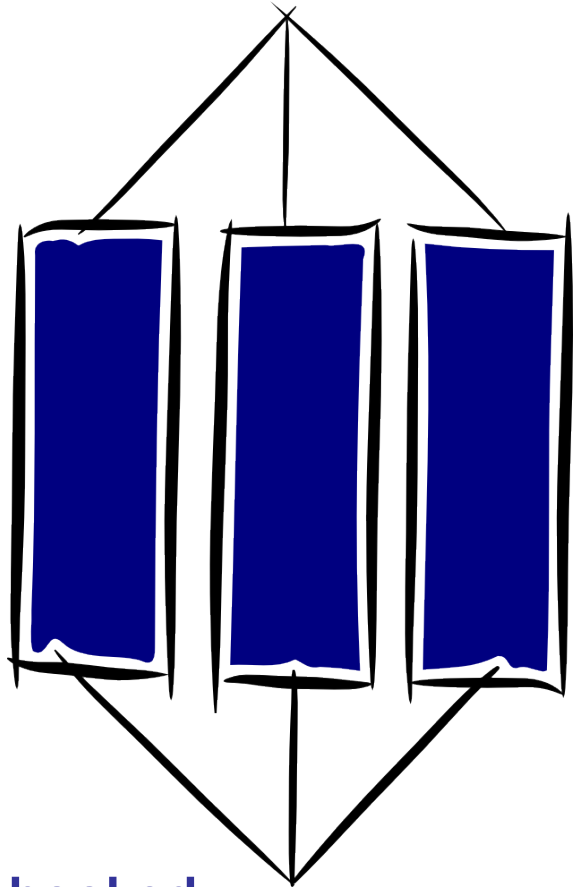


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# SOLO RELATIONAL:

Learning outcomes show full connections made, and synthesis of parts to the overall meaning



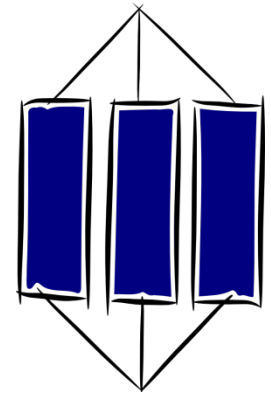
*“To help my students get a [ X ] learning outcome I plan to use [ X ] HOT Map because this map will ....*



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Are differentiated learning outcomes a planned focus of your use of HOT SOLO coded maps and rubrics?

## ***What you see in classrooms:***

Student use of SOLO coded maps and self assessment rubrics is seen across all levels of learning outcomes - from unistructural to extended abstract.



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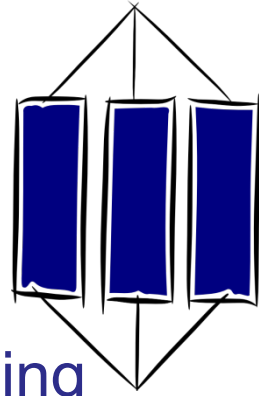
## ***What teachers say:***

"My students just completed a research project to **determine the causes** behind student avoidance of the school's drinking fountains."

"I designed a performance task for my students that required them to conduct web-based research and related data gathering to **support their predictions** for the Auckland Zoo's elephant action plan "

"My students created a multimedia presentation that **analysed the issue** of illiteracy among 18-25 year old New Zealanders."





Do you share the process of differentiating and coding intended learning outcomes against SOLO with students?

Do your students select HOT Maps to meet intended learning outcomes?

Do your students create or co-construct their own success criteria with your help?

## ***What you see in classrooms:***

Students referring to the levels and learning verbs in SOLO Taxonomy when identifying their “where to next” intended learning outcome.

Students explaining why an identified HOT map and self assessment rubric will help them achieve this.

Students constructing their own self assessment rubrics.

## ***What teachers say:***

"The creation of the information wiki was based on **student concern** over increasing traffic chaos around the school gate and **their desire to persuade** the local community to make the trip to and from school, a safer, healthier and more interesting learning experience.

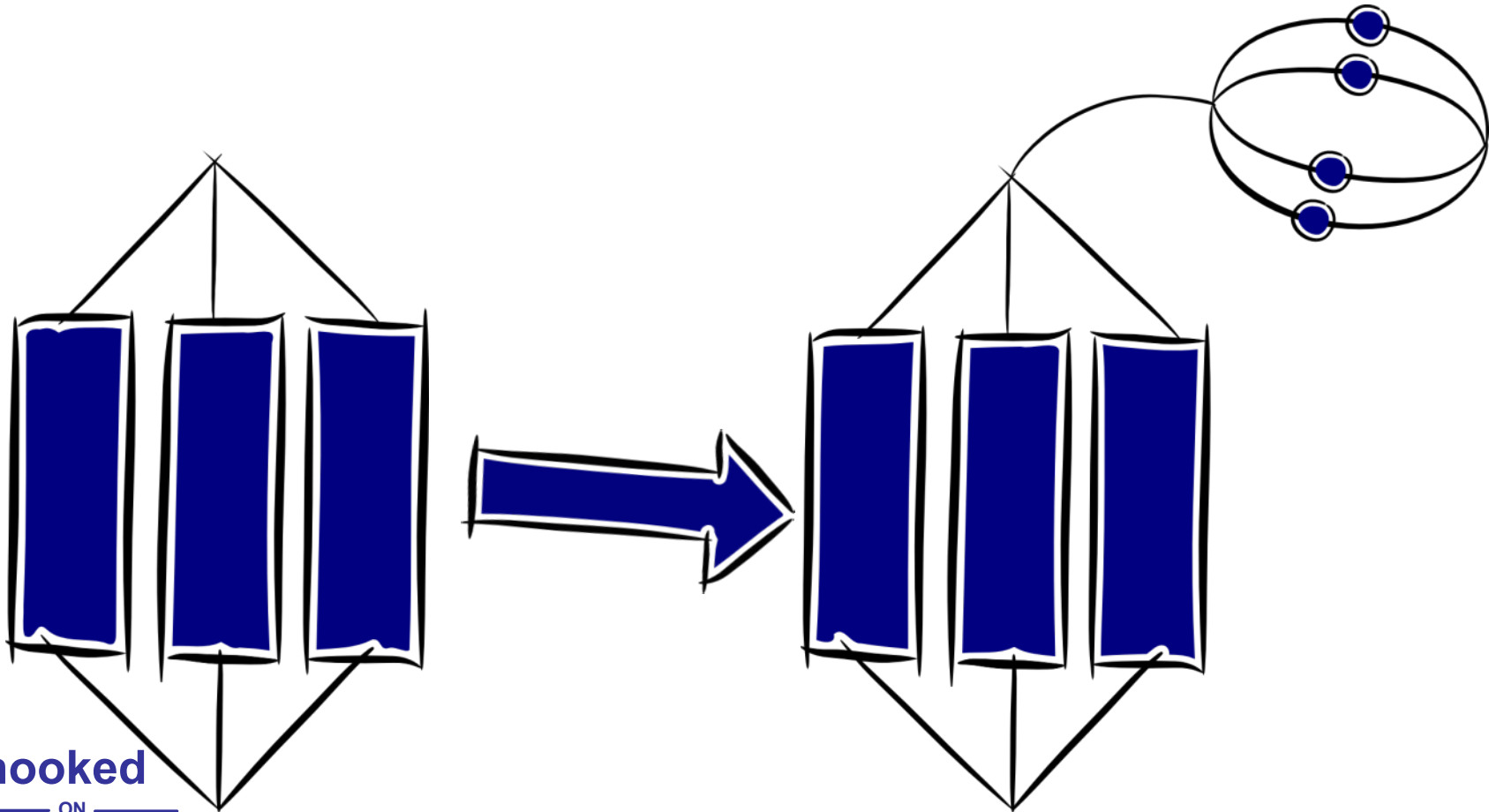
Once **we identified the learning outcomes** we had no trouble integrating the maps and rubrics that might be useful.



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# Where to next:

## For teachers with **relational learning outcomes**.

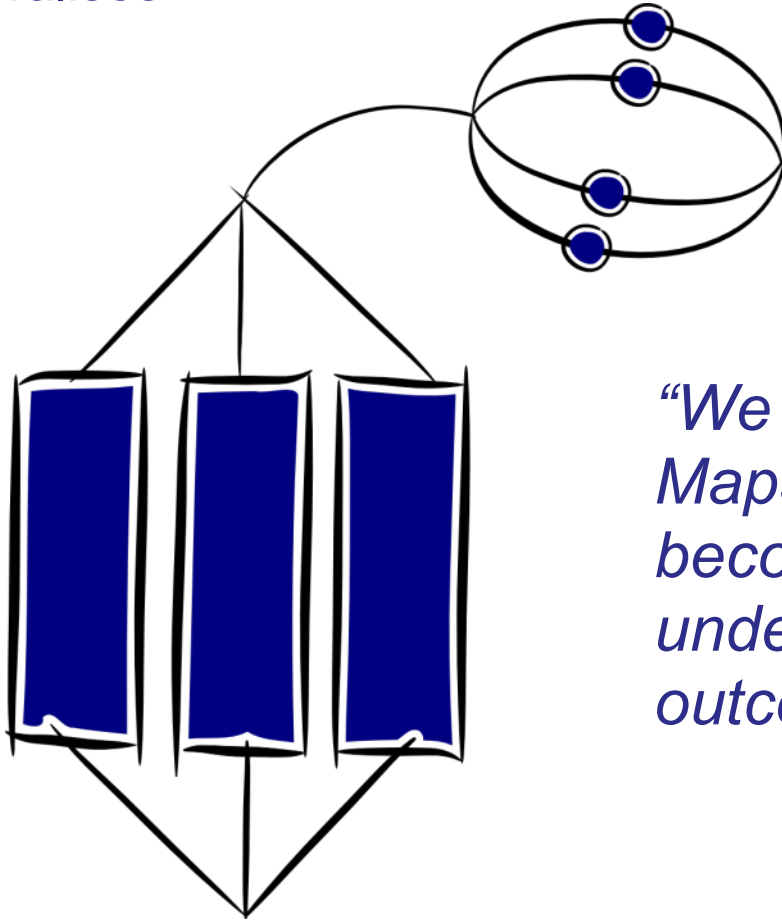


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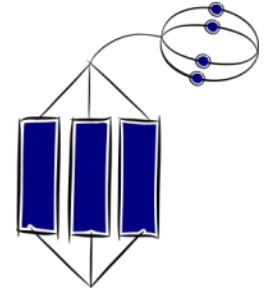
# SOLO EXTENDED ABSTRACT:

Learning outcomes go beyond subject and makes links to other concepts - generalises



*“We use SOLO Taxonomy and HOT Maps in everything we do ... it has become part of the way we understand teaching and learning outcomes ...”*





## **Reflective use by teacher and student.**

Are you and your students reflective users of the differentiated learning outcomes in SOLO Taxonomy.  
e.g.

Intuitive use of SOLO to understand learning outcomes in the design, implementation and assessment of student learning

## ***What you see in classrooms:***

Students designed an interactive web site for English for speakers of other languages (ESOL) students in local cluster schools to increase their opportunities for English language conversation.

SOLO Taxonomy and HOT Maps are seamlessly aligned and run in the background of the learning process.

## ***What teachers say:***

"Every student understands the language of learning through SOLO differentiated learning outcomes and is able to plan, monitor and self assess their own learning outcomes. Don't all students?"

## **What students say:**

"With teachers using the SOLO framework we have been given the tools to achieve and understand what is going on it is not all in the teachers hands which allows us to take responsibility for our own learning which in turn also gives us a sort of freedom which is useful and a feeling of control over our own learning."

Year 12 student at Rutherford College in Auckland

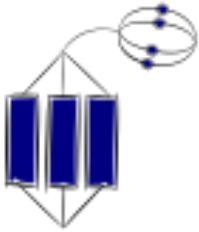






Criterion based  
SOLO self  
assessment  
rubric for using  
SOLO  
Taxonomy and  
HOT Maps in  
teaching and  
learning.



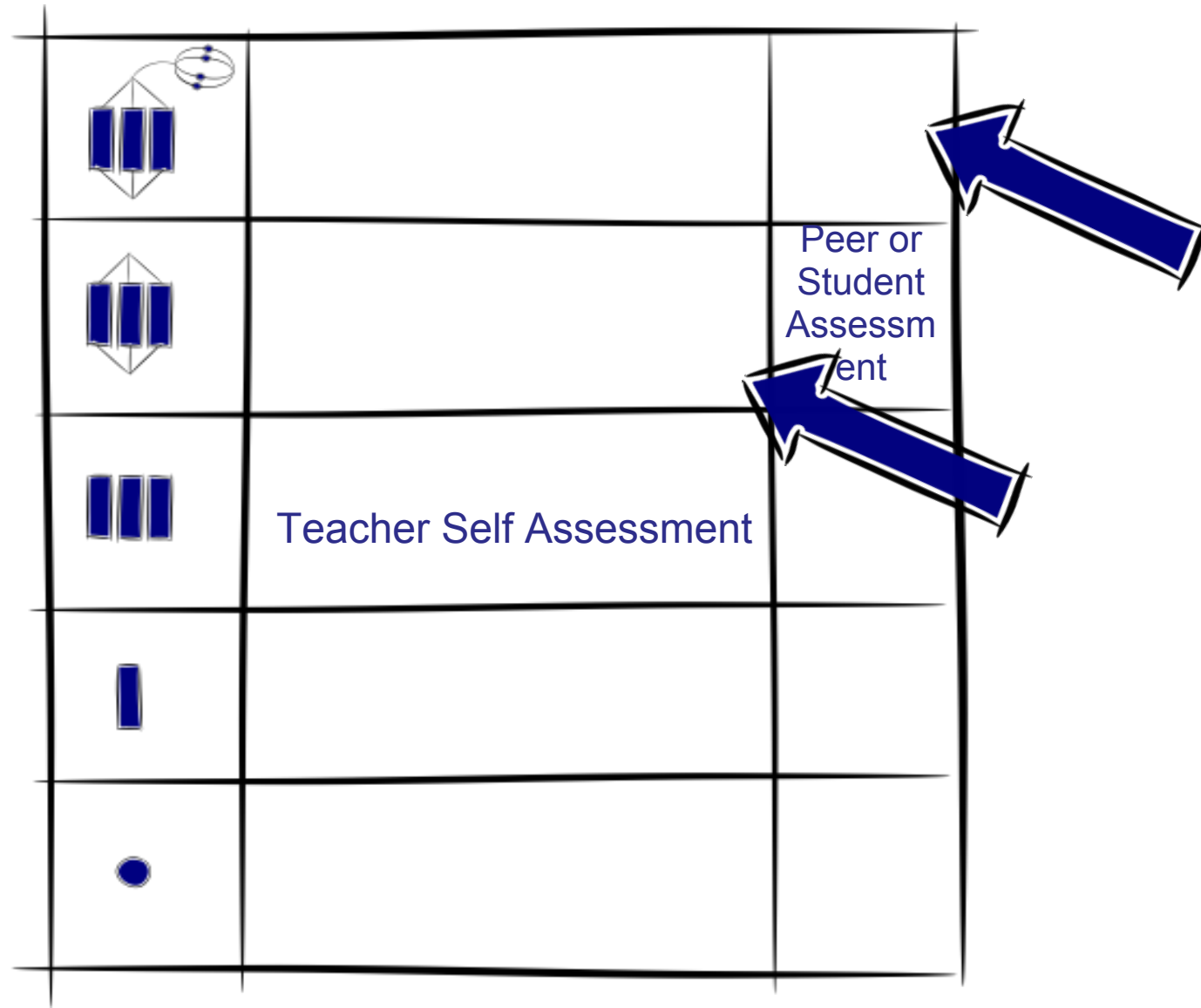
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	<i>"I use SOLO Taxonomy and HOT Maps in everything I do ... it has become part of the way I understand learning ..."</i>
	<i>"I plan using SOLO Taxonomy and HOT Maps because it helps ...."</i>
	<i>"I use SOLO Taxonomy and HOT Maps in teaching and learning on a trial and error basis"</i>
	<i>"I can have a tilt at using SOLO Taxonomy and HOT Maps."</i>
	<i>"I need help to use SOLO Taxonomy and HOT Maps in teaching and learning."</i>

# How reliable and/or valid is teacher self assessment of use of SOLO Taxonomy and HOT Maps?

Measuring the degree of correlation between teacher self assessment and peer/student assessment.



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# Create a self-assessment survey of teacher use of SOLO Taxonomy and HOT Maps for “Learning to Learn”.

[illegible]

# Create a self-assessment survey of use of SOLO Taxonomy and HOT Maps for “Learning to learn”.

Align the SOLO self assessment rubric discriminators with;





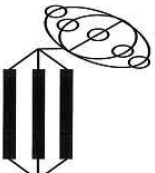
Swartz and Perkins’ tacit, aware, strategic and reflective discriminators, and

Gordon Training Institute’s unconscious incompetence, conscious incompetence, conscious competence and unconscious competence discriminators.



# HOT EFFECTIVE PEDAGOGY RUBRIC:

Using dimensions identified in NEW ZEALAND CURRICULUM [elaborated through BEST EVIDENCE SYNTHESIS 2003]

Rubric Learning Outcomes based on the Structure of Observed Learning Outcomes - SOLO Taxonomy					382
	 Prestructural	 Unistructural	 Multistructural	 Relational	 Extended abstract
<b>Biggs and Collis</b>	Learning outcomes show unconnected information, no organisation.  <i>E.g. "I need help or direction"</i>	Learning outcomes show simple connections but importance not noted.  <i>E.g. "I will have a tilt"</i>	Learning outcomes show connections made, but synthesis of parts to the overall meaning.  <i>E.g. "I use trial and error to find a solution"</i>	Learning outcomes show full connections made, and synthesis of parts to the overall meaning.  <i>E.g. "I plan to do X because it will ... I know what to do and why .."</i>	Learning outcomes go beyond subject and makes links to other concepts - generalises  <i>E.g. "I sense what to do to find the best solution ...."</i>
<b>Swartz and Perkins</b>	Tacit	Aware		Strategic	Reflective
<b>Gordon Training Institute</b>	unconscious incompetence	conscious incompetence or conscious unskilled		conscious competence or conscious skilled	unconscious competence or unconscious skilled
<b>Encouraging reflection and action.</b>					
SOLO Taxonomy helps to a common of learning. Blended teaching is responsive to student learning processes. Alton-Lee 2003 BES	I use SOLO Taxonomy to introduce SOLO Taxonomy as the common language for student understanding	I use SOLO Taxonomy, HOT maps and self-assessment rubrics to supplement my existing teaching programmes.  e.g. I SOLO code my learning intentions	I integrate SOLO Taxonomy, HOT maps and self assessment rubrics to scaffold differentiated learning outcomes in my planning.  e.g. I SOLO code my learning intentions (WALT statements) at	I integrate SOLO Taxonomy, HOT maps and self assessment rubrics to complement differentiated learning outcomes in the design, implementation and assessment of learning within my teaching	I have infused SOLO Taxonomy, HOT Maps and self-assessment rubrics in the design, implementation and assessment of learning within my teaching practices.  My students and I understand



# Learning to Learn Programme Evaluation

For more survey and assessment tools refer to the HookED Wiki on [www.pamhook.com](http://www.pamhook.com)



transforming learning outcomes

## Contact

**Pam Hook**

pam (DOT) hook (AT) gmail.com

**Julie Mills**

jack-mills (AT) xtra (DOT) co (DOT) nz