SOLO Taxonomy: A mental model for learning to learn.

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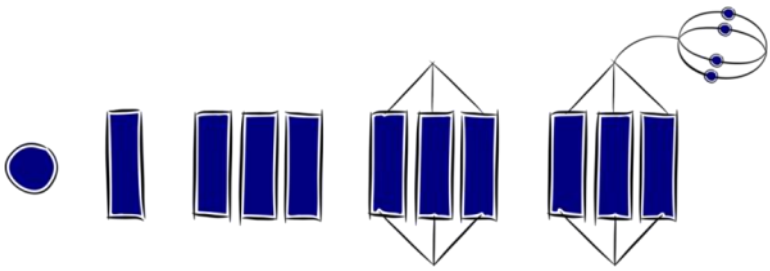

Workshop participants will gain a clear understanding of the:

- the key attributes of assessment capable students;
- the ways in which SOLO can help students identify their learning strengths and needs; and
- the reasons why students using SOLO make skilled and active 'Where to next?' decisions.

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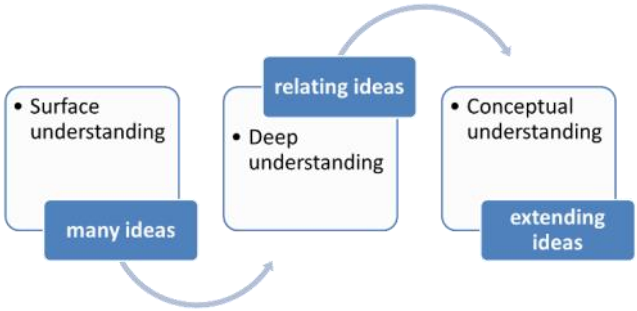
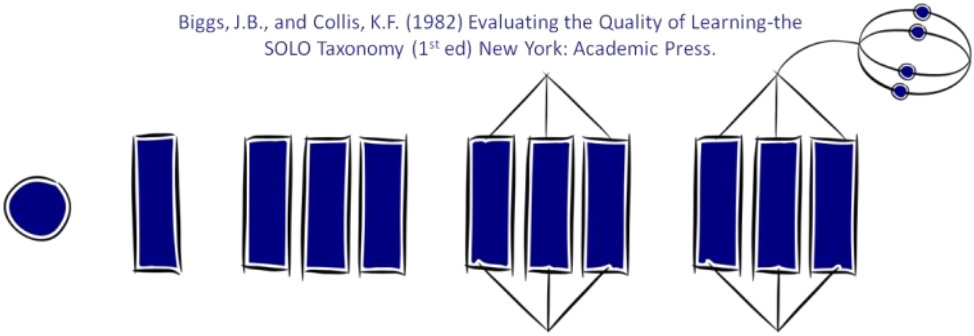
SOLO Taxonomy - Biggs and Collis 1982

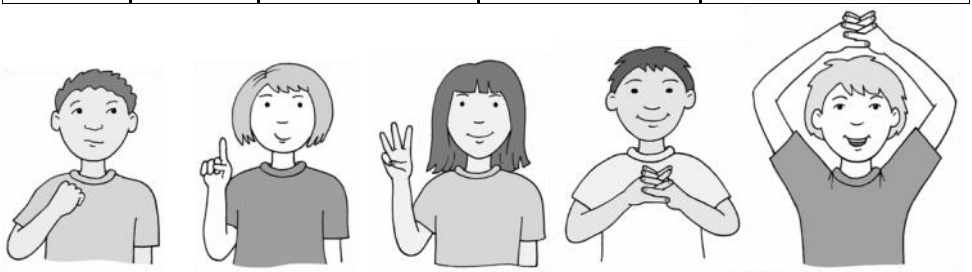
The Structure of Observed Learning Outcomes



Biggs, J.B., and Collis, K.F. (1982) Evaluating the Quality of Learning-the SOLO Taxonomy (1st ed) New York: Academic Press.



Prestructural	Unistructural	Multistructural	Relational	Extended Abstract
Learning outcomes show unconnected information, no organisation.	Learning outcomes show simple connections but importance not noted.	Learning outcomes show connections are made, but significance to overall meaning is missing.	Learning outcomes show full connections made, and synthesis of parts to the overall meaning.	Learning outcomes go beyond subject and makes links to other concepts – generalises.



Hook and Mills 2011 p 12

The most powerful model for understanding these three levels and integrating them into learning intentions and success criteria ***is the SOLO (structure of observed learning outcome) model*** *developed by Biggs and Collis (1982).*

Hattie 2012 p54

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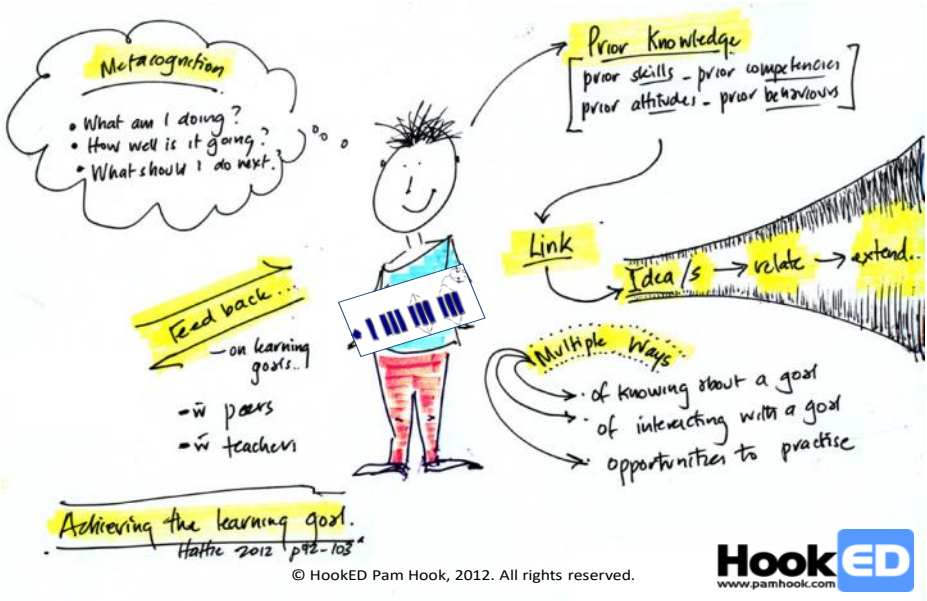
Unistructural	Define, identify, name, draw, find, label, match
Multistructural	Describe, list, outline, follow a procedure
Relational	Sequence, classify, compare and contrast, explain causes, explain effects, analyse, make an analogy, organise, distinguish, interview, question
Extended Abstract	Generalise, predict, evaluate, reflect, hypothesise, create, prove, plan, justify, argue, compose, prioritise, design, construct, perform



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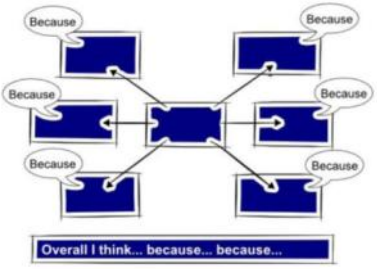
Learning Intention:
LI: To [SOLO verb] [content] [context]

e.g. I am learning to describe the habitat of the tuna (eel) in the Ngongotaha Stream

Effective strategy:
HOT SOLO Map aligned to the learning verb

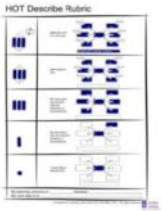
e.g. Student uses a **HOT SOLO Describe Map and success criteria in the self assessment rubric** to plan their description.



Target Vocabulary:

Insert target and technical vocabulary.
e.g. *and, in addition, as well as, also, too, for example, another, because, overall*

Success Criteria (SC):



Learning Outcome:

e.g. Student writing, annotated diagram or oral description of the habitat of the tuna (eel) in the Ngongotaha Stream.

Feedback (How am I going?):

My learning outcome is [insert SOLO level] **because ……..**

Feed Up (Where to next?):

My next step is to ……..

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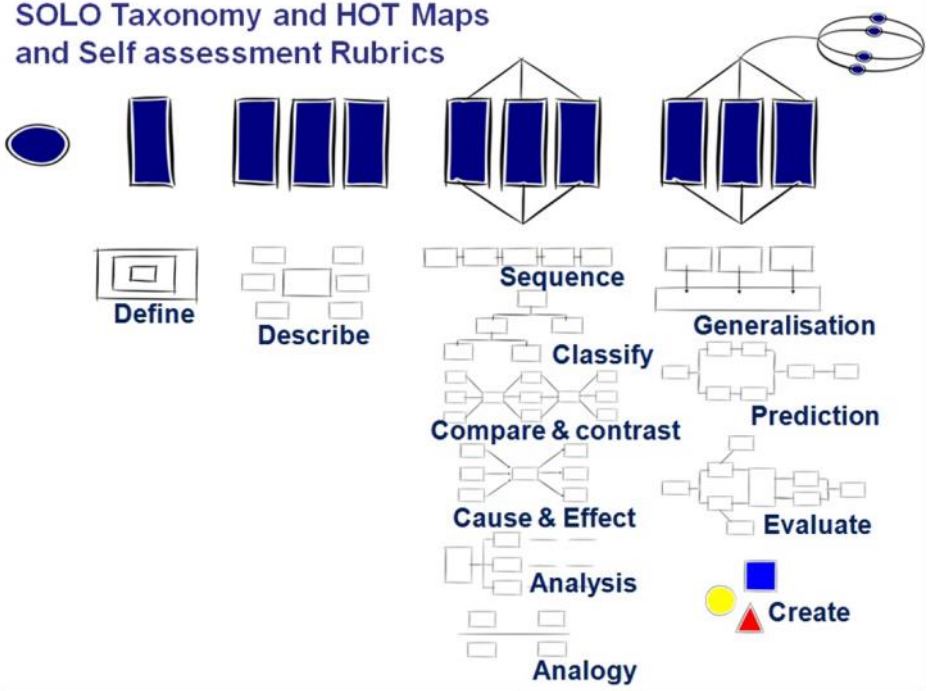
SOLO Taxonomy and HOT Maps and Self assessment Rubrics



SOLO Taxonomy

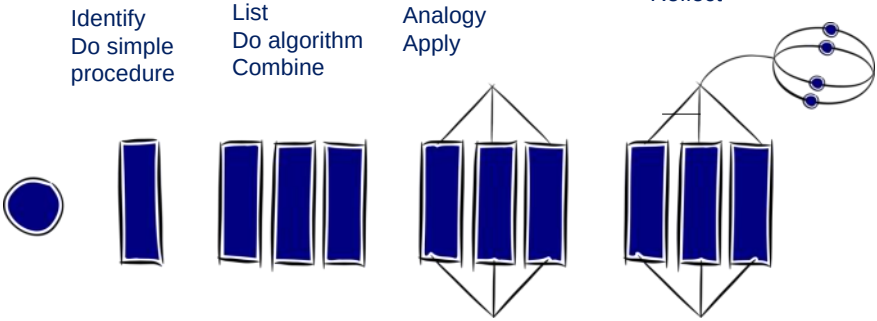
Biggs and Collis 1982

Define
Identify
Do simple procedure

Define
Describe
List
Do algorithm
Combine

Formulate questions
Compare/contrast
Explain causes
Sequence
Classify
Analyse -part/whole
Relate
Analogy
Apply

Evaluate
Theorise
Generalise
Predict
Create
Imagine
Hypothesise
Reflect



Biggs, J.B., and Collis, K.F. (1982) Evaluating the Quality of Learning-the SOLO Taxonomy (1st ed) New York: Academic Press.

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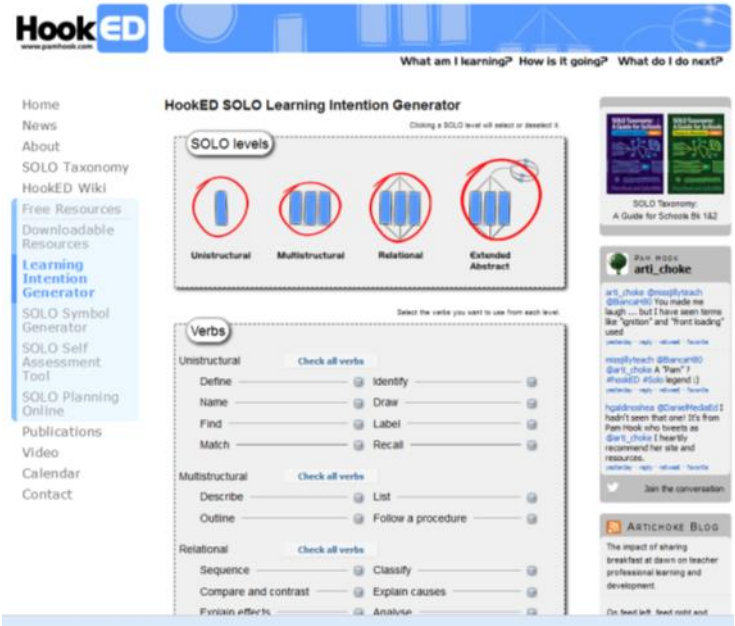

http://pamhook.com/free-resources/learning-intention-generator/

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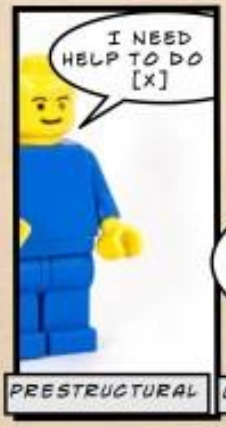
SOLO

FUNCTIONING KNOWLEDGE



PRESTRUCTURAL

UNISTRUCTURAL

MULTISTRUCTURAL

RELATIONAL

EXTENDED ABSTRACT

LEGO - HTTP://WWW.FLICKR.COM/PHOTOS/33263856@N02/

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Co-constructed Self Management Rubric					
Playground behaviours For example - *Using equipment in safe ways* - *Using kind words* - *Keeping hands and feet to myself* - *Following the rules of the game* - *Letting others play* **etc**	I need help to manage my xxxx behaviour in the playground	I can manage my xxx behaviour in the playground if I am told what to do. *(can manage behaviour if directed)*	I use several strategies to manage my xxxx behaviour in the playground but I am not sure when and or why to use them *(trial and error – aware of strategies but not sure why or when to use them so makes mistakes)*	I use several strategies to manage my xxx behaviour in the playground and I know when and why to use them *(strategic or purposeful use of self management strategies – knows why and when).*	I use several strategies to manage my xxx behaviour in the playground and I know when and why to use them. I can look around and help others to manage their xxxx behaviour in the playground I act as a role model for others to help them manage their xxx behaviour in the playground.
Effective Strategies	*[insert strategies suggested by students and teachers]*				

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What am I learning? How is it going? What do I do next?

- Home
- News
- About
- SOLO Taxonomy
- HookED Wiki
- Free Resources
- SOLO Apps
  - Learning Intention Generator
  - SOLO Symbol Generator
  - SOLO Self Assessment Tool
  - **Functioning Knowledge Rubric Generator**
- Publications
- Video
- Calendar
- Contact

HookED SOLO Functioning Knowledge Rubric Generator

This **HookED app** generates a **SOLO Functioning Knowledge Rubric**.

Insert a [functioning knowledge verb], [content] and [context] in the fields below. Then click "Generate Document" to produce your rubric.

Verb:

Content:

Context:

Generate Document

Example functioning knowledge verbs: plan, design, select, interview, question, collaborate, reflect, apply, listen, solve, use, mix, measure, observe, throw, share, etc.

SOLO Taxonomy: A Guide for Schools Bk 1, 2

SOLO Taxonomy and Making Meaning. Bk 1, 2, 3

PAM HOOK
arti_choke

beetlebug1 Here's my latest blog post My New Year's Resolution - Going SOLO beetlebug1.edublogs.org/?p=37 A work in progress...
7 hours ago · reply · retweet · favorite

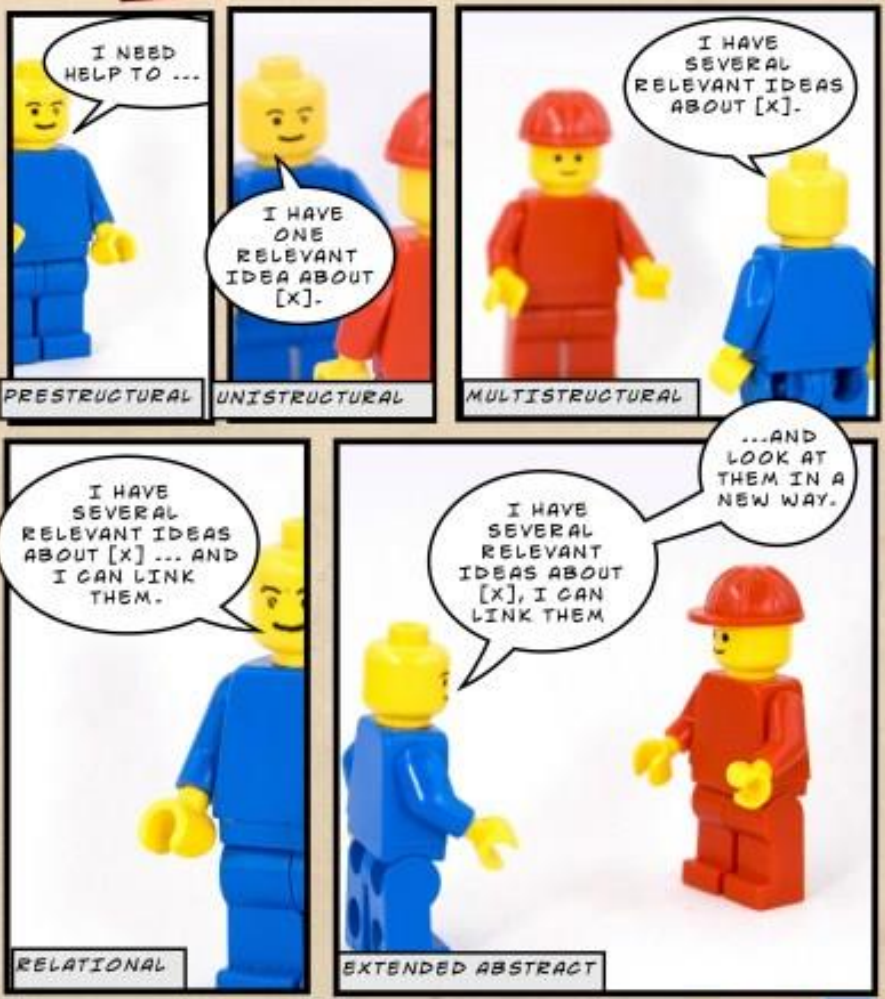
alceleung Stumbled across this post on using 'letter to a

http://pamhook.com/solo-apps/functioning-knowledge-rubric-generator/

SOLO Functioning knowledge Rubric	Prestructural [Needs help]	Unistructural [Tacit - if directed]	Multi-structural [Aware - but no reasons]	Relational [Strategic—purposeful]	Extended abstract [Reflective - evaluative]
Effective strategies					

SOLO

DECLARATIVE KNOWLEDGE



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SOLO Declarative Knowledge Rubric	Prestructural [Needs help]	Unistructural [one relevant idea]	Multistructural [several relevant ideas]	Relational [several relevant connected ideas]	Extended abstract [several relevant connected ideas looked at in a new way]
Effective strategies					

SOLO based approaches and effective strategies

http://pamhook.com/wiki/SOLO_based_approaches_and_effective_strategies

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SOLO based teaching & learning strategies

What makes you say that? (visible thinking routine)

SOLO noughts and crosses

Close reading

Improving an existing answer

SOLO Stations

The “quote, context, significance, wrap-up” strategy

See-think-wonder (visible thinking routine)

Literature circles

Make your own success criter

HOT mapping and self-assessment rubrics

Concept mapping hexagons

SOLO hot potato

“Write your own test paper and model answers”

http://pamhook.com/wiki/SOLO_based_approaches_and_effective_strategies

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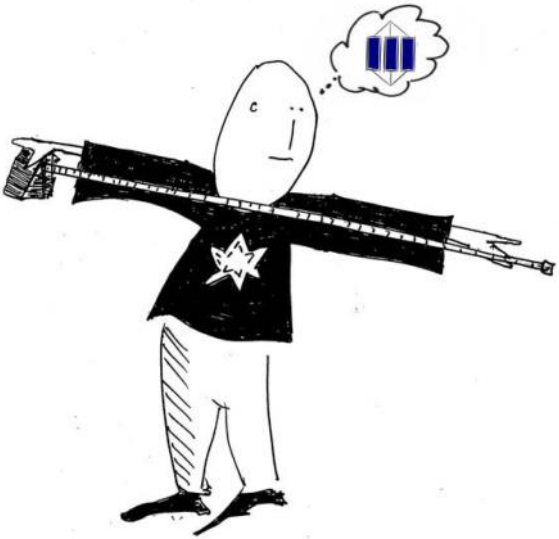

What am I doing?

How well is it going?

What should I do next?

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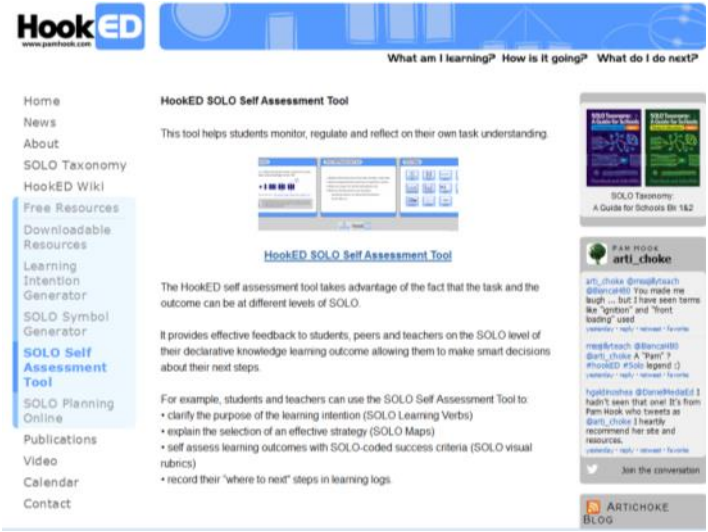

http://pamhook.com/free-resources/solo-self-assessment-tool/

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LI: [define] [content] [context]

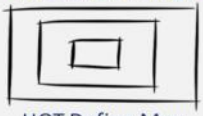
LI: **Define** the geosphere on the Planet Earth.

LI: **Define** Pythagoras' Theorum in two and three dimensions.

LI: **Define** the rights of consumers in NZ society.

LI: **Define** artwork from a Maori cultural context.

Effective Strategy:



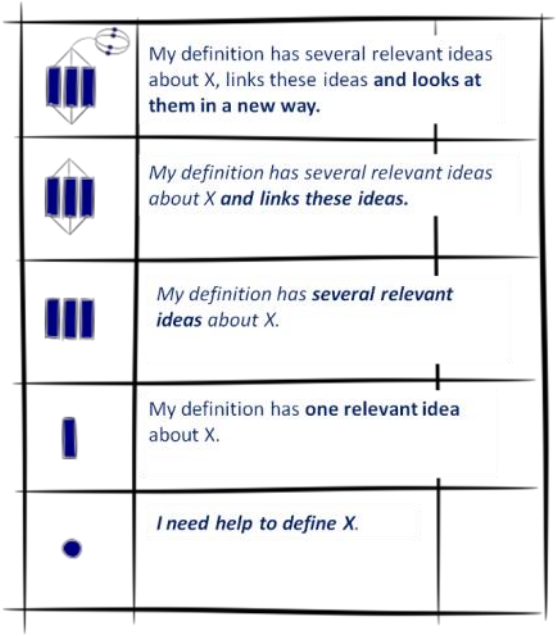
HOT Define Map

SOLO Learning Log:

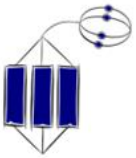
My definition statement is at a** [insert SOLO level] **outcome because .....

My next step is to .....

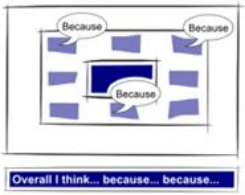
Success Criteria for DEFINE



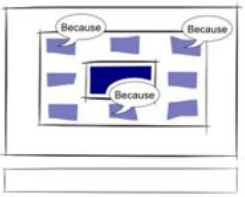
HOT Define Rubric



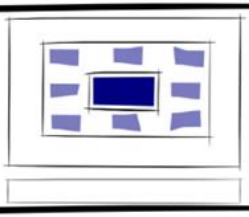
and looks at these linked ideas in a new way



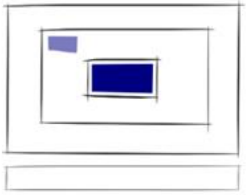
and links these ideas



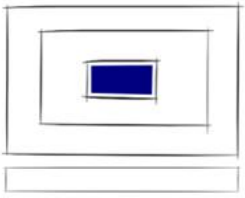
My definition has several relevant ideas



My definition has one relevant idea



I need help to define [X]



My learning outcome is _____ because_____

My next step is to _____

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LI: [compare & contrast] [content] [context]

LI: **Compare & contrast** the geosphere and atmosphere on Planet Earth

LI: **Compare & contrast** a parallel line with a perpendicular line.

LI: **Compare & contrast** two strategies for profit maximisation.

LI: **Compare & contrast** examples of traditional and contemporary Tuhi Whakaniko (visual art practice).

Effective Strategy:

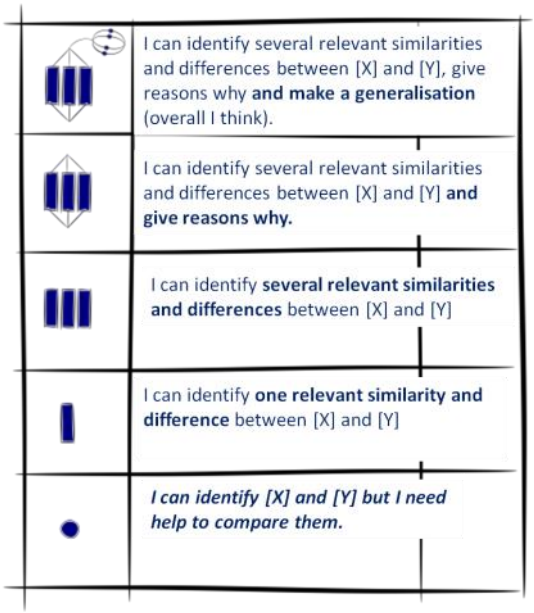
HOT Compare Contrast Map

SOLO Learning Log:

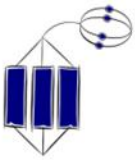
My compare & contrast statement is at a [*insert SOLO level****] outcome because .....***

My next step is to .....

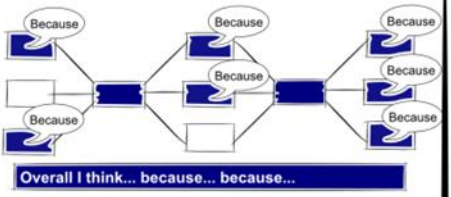
Success Criteria for COMPARE & CONTRAST



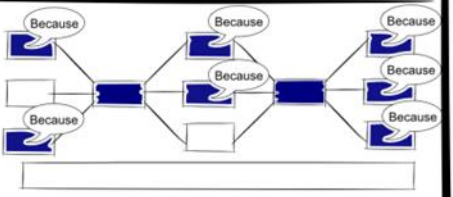
HOT Compare Contrast Rubric



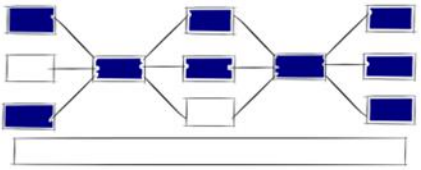
and can make a generalisation (overall I think)



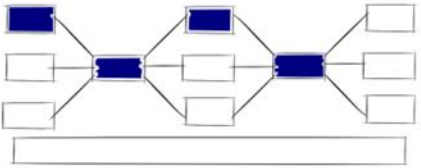
and can give reasons why



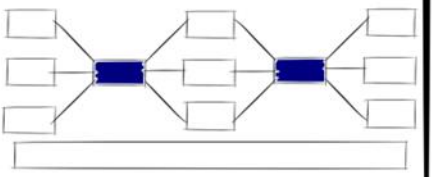
I can list several relevant similarities and differences between [X] and [Y]



I can identify one relevant similarity and difference between [X] and [Y]



I can identify [X] and [Y] but I need help to compare them



My learning outcome is _____ because_____

My next step is to _____

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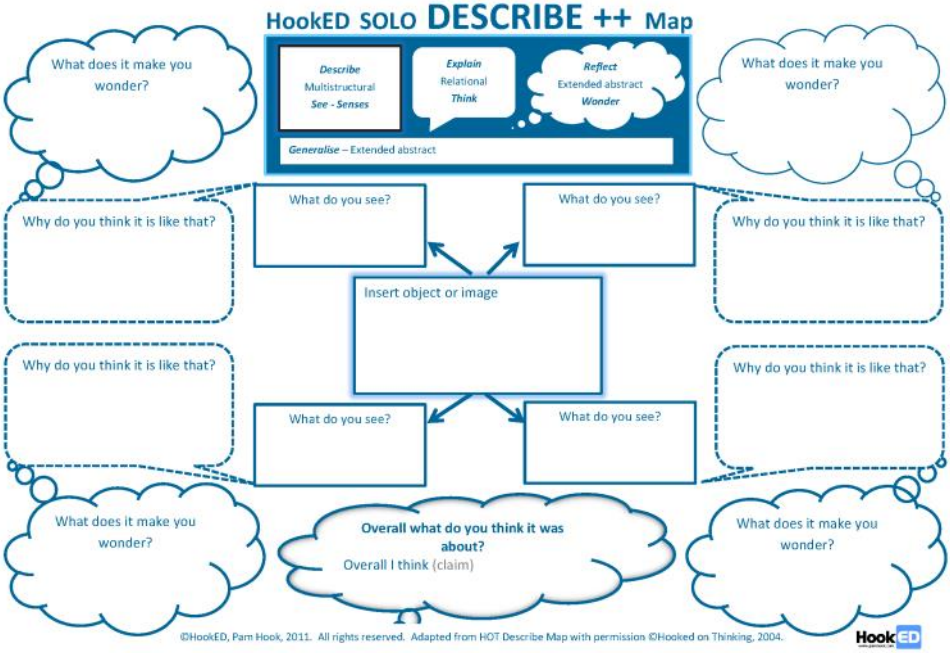

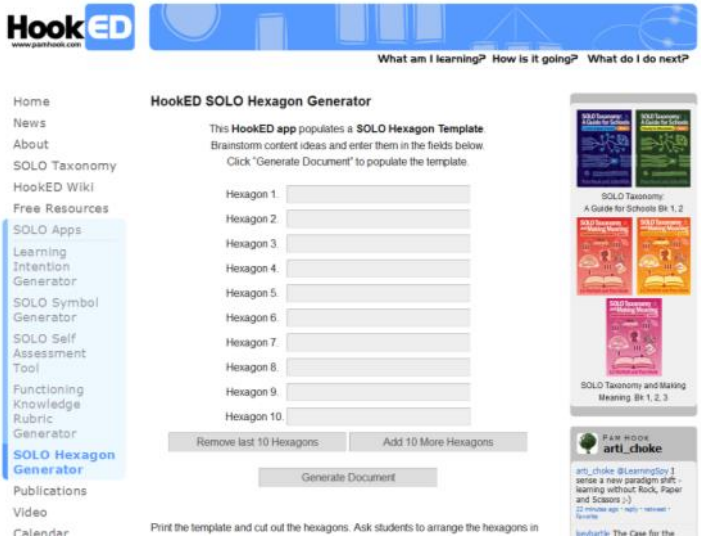

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