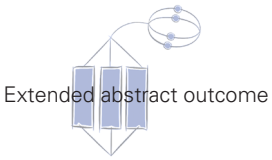
How can we apply SOLO in the classroom?

We are supposed to wait until senior management meets and decides on how this will happen. But I'm not that patient. I can see how sharing SOLO will help my students develop a "growth mindset" – and I am starting first thing tomorrow morning.
Teacher after a SOLO Taxonomy Teacher Only Day



SOLO is a model that focuses on the learning outcome. Given that everything we do in schools is focused on the learner and the learning outcome, SOLO is useful in everything we do. The choice means some teachers immediately see how SOLO will address a need for their students and jump right in. Others feel overwhelmed by choice when deciding how, where and when to start using the model with students in their classrooms.

The introduction of SOLO as a model of learning should always follow the discussion on why you want to introduce it. Without identifying a clear purpose (or a need that SOLO might help address), we risk cluttering the complex job of teaching and learning with yet another "good idea" that detracts from effective practice.

Identifying a need that a common model of learning might answer (or a reason from those listed in Section 2) is a good place to start. Knowing what you intend to change is the first step in designing research (quantitative or qualitative) to measure whether you achieve that change. And this requires capturing a snapshot or baseline of the student's learning you hope to change before you start.

TIP: START SIMPLY AND START SMALL

Whatever the narrative, my advice is to start simply and on a small scale. For example, you could start by using SOLO terms, symbols and hand signs to indicate and explain the level of complexity of tasks and outcomes across a lesson.

Making learning visible in this way does not require any special budget, photocopying, laminated wall displays, handouts or Post-it notes. Starting with learning intentions and success criteria involves labelling what you already do so that students can see the structure of the task and outcome. You can make symbols online with the HookED SOLO Symbol Generator (http://pamhook.com/solo-apps/solo-symbol-generator).

INTRODUCING SOLO AS A MODEL FOR LEARNING IN THE CLASSROOM

Here are some of the many, many ways to introduce SOLO as a model of learning.

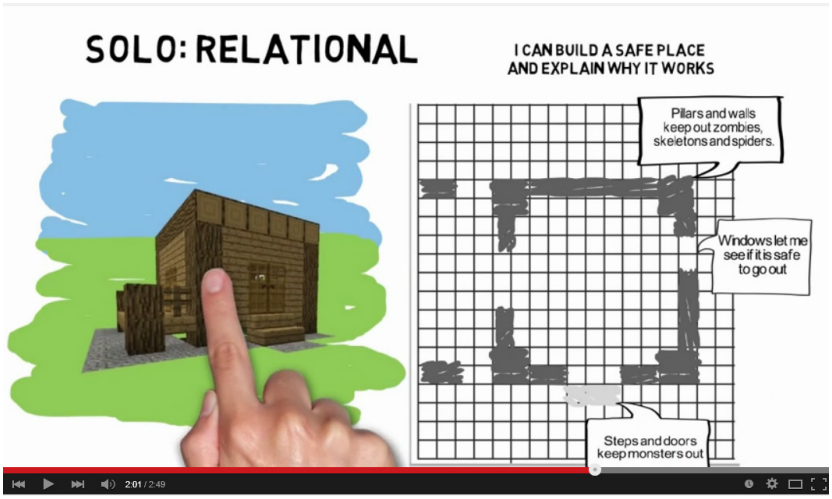
Mindset

SOLO emphasises effort, strategies and making mistakes when learning. I often talk to teachers and students about SOLO in the context of Carol Dweck's "growth mindset" (Dweck 1999, 2006) and "one line of praise studies" (Cimpian et al 2007; Kamins and Dweck 1999; Mueller and Dweck 1998). In emphasising the importance of seeing effort as a positive aspect of learning (Blackwell et al 2007; Nussbaum and Dweck 2008), I stress that a learner needs a clear understanding of what they are doing, how well it is going and what their next steps for learning are and how they can achieve this through using SOLO.

Learning to do something

You can introduce SOLO by making an analogy between the model and the process of learning how to skateboard, play a team sport, perform a piece of music, feed yourself yoghurt or construct a dwelling on Minecraft (Figure 3.1).

Figure 3.1: A relational outcome for constructing a dwelling on Minecraft



Source: HookED SOLO Taxonomy Minecraft (http://youtu.be/4XrxiHHHaQA)

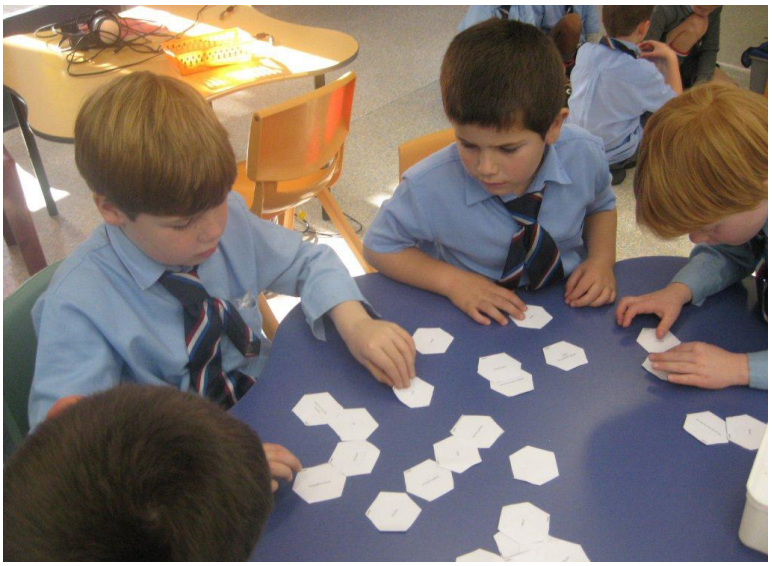
Rodney Mullen's skateboard videos (search using his name on YouTube) provide great examples of what an extended abstract performance might entail. Being able to transfer the skills of feeding yourself yoghurt to another setting is an example of an extended abstract outcome for a student in a special needs environment. It is obvious in every case that this extended abstract outcome has come from effort and hours and hours of practice with the use of different effective strategies – not luck or fixed ability.

SOLO hexagons

Using SOLO hexagons is a great hands-on way to demonstrate that loose ideas are important but become more interesting when you can make connections between them and more powerful again when you can step back and see the "big picture" (Figure 3.2). If you are using this activity to introduce SOLO as a model, it is best to use a topic that teachers, students and/or families are already very familiar with – for example, the holidays, morning tea or a recent community issue.

For more information, see "Introducing SOLO through systems thinking and SOLO hexagons" (p 36).

Figure 3.2: SOLO hexagons as a hands-on way to demonstrate the power of making connections and seeing the big picture



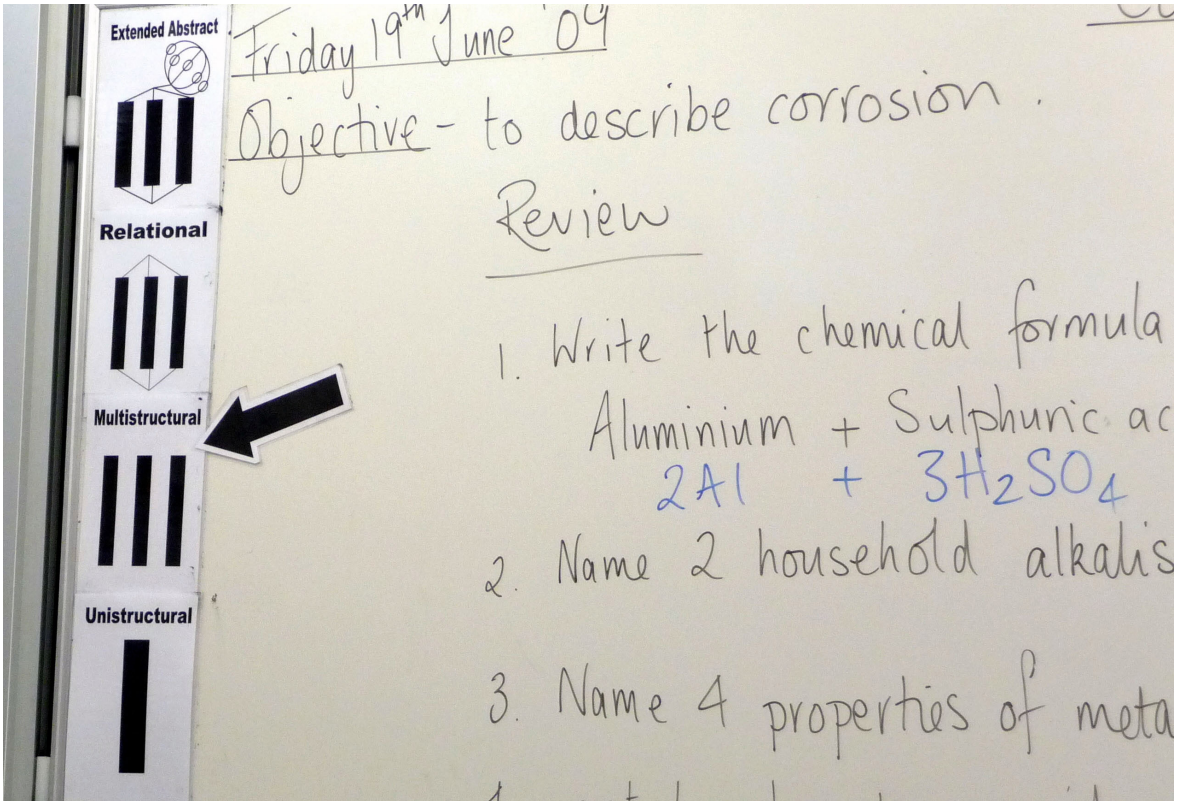
Source: Wellesley College, Wellington, New Zealand

Labelling learning intentions

By labelling learning intentions, you create a great context for teaching students the symbols and hand signs for each level and for encouraging students to use them in learning conversations across each day. You might have separate SOLO symbols (laminated) with a movable arrow on the whiteboard to code learning intentions, questions, student responses and so on (Figure 3.3). Alternatively you might use SOLO hand signs to familiarise students with the different levels, as in the following example:

> We have just watched a DVD about the effects of ecotourism on the Galapagos Islands. What is your level of understanding about the outcomes we saw in the documentary? If you think you can list several effects of ecotourism, use the multistructural hand sign for loose ideas, like this [shows sign]. If you can explain why these are direct or indirect consequences of ecotourism using connectives like "because", then use the relational hand sign for connected ideas – like this [show sign].

Figure 3.3: Labelling SOLO learning intentions on the whiteboard



Labelling success criteria and identifying next steps

As noted in previous sections, the cognitive complexity of the task and outcome can be at different SOLO levels. For example, a multistructural task (eg, *describe*) can be achieved at unistructural, multistructural, relational and extended abstract levels.

When thinking about the intended learning outcomes at the start of an activity, it is useful to indicate the SOLO level of the success criteria. To do so, you need to use SOLO levels consistently to describe the cognitive complexity of learning tasks (learning intentions), outcomes (success criteria) and next steps – and to encourage students to contribute. For example:

> Today we are starting to explore and then describe the social norms that exist when people upload photos to a social networking site. Who would like to suggest a suitable learning intention? What is the SOLO level of the task? Why do you think that? How will we know we are successful? What levels of success are there?

Aligning academic verbs with SOLO levels in learning intentions (LI) and success criteria (SC) helps to create a common language for learning.

LI: [verb] [content] [context] – SOLO level of task

SC: Outlined at different levels of SOLO

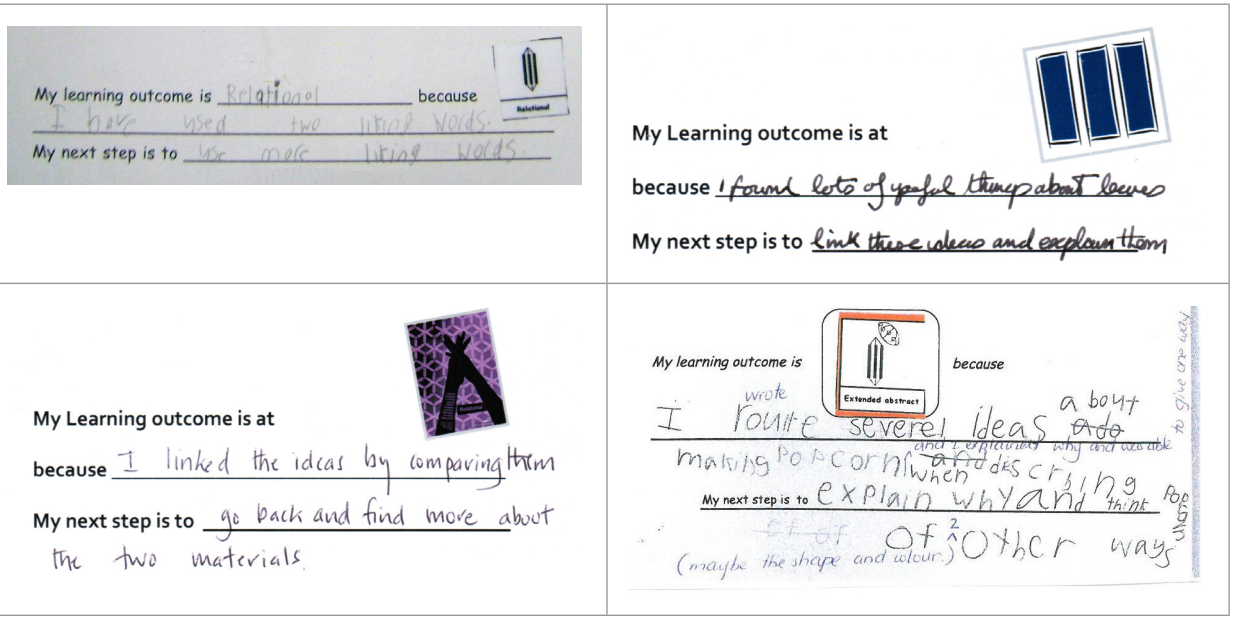
SOLO stickers and stamps

You can use SOLO stickers and stamps to help students learn to self-assess the level of their learning outcome, justify their choice and suggest next steps. Figure 3.4 offers a template for self-assessment with HookED SOLO stickers or stamps; Figure 3.5 shows how some students have completed the assessment with their reflections and their choice of sticker that reflects the SOLO level of their learning outcome.

Figure 3.4: Template for self-assessment with HookED SOLO stickers or stamps

My learning outcome is at because My next step is to	My learning outcome is at because My next step is to

Figure 3.5: Examples of how students have used SOLO stickers or stamps



Tip: Easy access to SOLO symbols

To create SOLO symbols, you can:

- download them from the HookED website (http://pamhook.com/free-resources/downloadable-resources)
- create them in different colours using the HookED SOLO Symbol Generator (http://pamhook.com/solo-apps/solo-symbol-generator).