Isabel Hopwood-Stephens outlines the success of TAPS through the exploration of their data

Introduction
The TAPS pyramid was developed in late 2014 and has been available as a download on the Primary Science Teaching Trust (PSTT) website since August 2015. But where has it gone since then? Who is using it? And how is it being used in schools to change primary science assessment practice?

This article will attempt to answer these questions with data from an ongoing study into its impact and reach.

Where has the TAPS pyramid been downloaded?
During its first year online, the TAPS pyramid was downloaded 2,994 times (see Figure 1), from Taiwan and Tanzania to Cyprus and Singapore. However, international downloads account for only 5% of the total; the vast majority of downloads took place in the UK. It was downloaded in 362 different locations, from 537 copies in London to one copy in Leek.

The TAPS pyramid was not only disseminated online, however. It was also presented to science subject leads and primary teachers at conferences, seminars, cluster meetings and staff development days. These events, led by primary science specialists who are passionate about improving
their subject, played a vital role in bringing the TAPS pyramid to its target audience. Put simply, there were significantly more downloads of the TAPS pyramid in counties where these types of events to promote the TAPS pyramid were held, compared to those where there were none. Perhaps this is not surprising – after all, the TAPS pyramid is not an ‘off the peg’ solution for primary schools wishing to improve assessment in primary science! Instead, it is a resource that requires its user to engage with it. These events allowed interested teachers and subject leads to learn about this new resource, and also to reflect upon how to adapt it to the requirements of their settings (King, 2003).

Who used it, and how?
The TAPS pyramid user survey used an online questionnaire (December 2016–February 2017) to collect the views of over one hundred teachers, science subject leads and school leaders who had tried using it in their schools.

Interestingly, the mode through which respondents discovered the TAPS pyramid seems to have shaped their understanding of its purpose. 50% of those who discovered it at an event thought that it was for evaluating existing primary science assessment practice, compared to only 13% of those who found it online. This difference can also be seen in how respondents reported using it; those who discovered the TAPS pyramid at a face-to-face event put it to a considerably wider range of uses than those who had discovered it online. This finding indicates that a deeper understanding of its purpose and possibilities was gained by those attending the dissemination events.

Increased use of formative assessment
At an individual level, the TAPS pyramid has overwhelmingly been used by respondents to evaluate and improve how they assess progress in primary science. Three quarters of respondents used the activities in the blue pupil and teacher layers to increase their repertoire of formative assessment strategies, and many respondents felt more confident about assessing pupil progress due to using a wider range of formative assessment strategies. The most challenging aspect of using the TAPS pyramid for individual teachers seemed to be the storage of all the rich formative data being generated by these changes to their practice; one quarter of respondents said that they had not yet established a manageable system for keeping and using that data.

However, it wasn’t plain sailing for all teachers who tried to use the TAPS pyramid. When asked how satisfied they had been with how they had used it, the main reason for being dissatisfied was having insufficient time to work out how to use it. This was followed closely by a lack of support from the school leadership. A few respondents also found it hard to understand.

Changing assessment at a school level
At a school level, the TAPS pyramid has been used in primary schools to raise awareness of appropriate formative assessment strategies, with science subject leads evaluating existing assessment practice in their schools before delivering tailor-made professional development for staff. An interesting shift can be seen in these schools’ assessment practice: 55% of respondents said their staff now collect evidence from a range of sources for judging pupil progress, and 52% reported that their staff now have a shared understanding of what progress in the science topics looks like.

The toughest nut to crack seems to be moderation, however. Just under half of all respondents who had used the TAPS pyramid to change assessment practice at a school level admitted that they were yet to hold a moderation meeting.

Reasons to be cheerful
A key difference between the school level findings and individual use was the most frequently cited reason for satisfaction. While individual users ascribed their satisfaction to their increased confidence and range of assessment strategies, the most frequently cited reason for school-level satisfaction was the opportunities that the TAPS pyramid provided for discussing primary science teaching and assessment with colleagues. When added to the fact that the highest downloads occurred in areas with face-to-face events, and the link between discovery and interpretation, these results seem to support the view that teachers prefer to learn from their peers (Hood, 1990). This in turn validates the ‘cluster’ model for disseminating new ideas and practice among primary teachers (Primary Science Teaching Trust, 2017).

Study limitations
This survey collected the views of a self-selecting sample of teachers who were already interested in primary science assessment. While these data indicate how the TAPS pyramid has influenced assessment practice in primary schools, little can be learned from this analysis about the experience of ordinary class teachers who had to change their assessment practice. Equally, little can be understood of what it was like for teachers and subject leads whose attempts to shift assessment practice using the TAPS pyramid stalled. The final stage of this study will use case study data to explore in more detail how teachers change their practice at an individual and school level. In the meantime, the TAPS pyramid can be downloaded from the PSTT website.

References
