



Building Data-Informed Collaborative Teaching Teams

Australian teachers are encouraged to work collaboratively in teams through regular cycles of planning, implementation and reflection in order to have a positive impact on student learning (AITSL, n. d., 2011). When teachers collaborate and reflect on the impact they have in their classrooms, consider the progress that their students have made, identify trends in student results, and then adjust their pedagogy accordingly, they are being truly responsive to students' needs. To maximise their accuracy and effectiveness, collaboration and regular cycles of team planning require access to, and reflection on, student data and evidence. In a perfect world, teaching teams would meet and reflect on cohort, class and individual student data.

Together, they would unpack challenges and achievements that their students have experienced, and the teaching team would work together to plan the next steps for teaching and learning. However, the notion of sharing and working with data in this way – particularly with peers – can be a daunting concept, especially for those who are new to the practice, or if the school culture has not traditionally supported the open sharing of student data.

Data democratisation

Like broader society, schools are in, or moving into, the third generation of business intelligence, meaning that all members of the learning community should have access to the data that they need when they need it (Fisher & Good, 2019). This follows the first generation of business intelligence where, in schools, information technology departments and principals largely had sole access to the data, and the second generation where more staff (such as leadership teams and middle leaders) began to be included in the sharing of data and data conversations. The third generation of business intelligence calls for organisations to become *data democracies*, where all staff have regular access to data in a responsible manner, whenever it is required. In a school context, this means that it is no longer acceptable for leadership teams to hold all access to all of the data. Teachers require access to all student data that is relevant to them, and leadership teams should be actively empowering their staff to seek out and use big data as well as become collectors and users of their own class data.

All schools are positioned somewhere on the data democracy continuum – from leadership teams that share little data with staff and hold the data close to them, through to full data democracies where teachers have access to the data that they need whenever they need it, and they regularly reflect on student performance and are responsive to the needs of their class. In my work with leadership teams, schools and teachers, it is clear that Australian schools vary considerably in the sharing of data with staff. It is also clear that when it comes to transparency with data, teachers' perceptions and their openness about sharing data with colleagues are significantly impacted by their senior leaders' own perceptions and openness. I have met plenty of principals who are forthcoming with students' results in standardised testing, they discuss positive trends in data and are confident in having data-informed conversations about underperforming areas. These leaders work with their teachers to unpack the trends in the data, and they provide support to teachers who actively seek solutions to the challenges that the data identify. They inspire their teachers to be open and willing to share their challenges with their colleagues to problem solve and celebrate success where possible, and teachers do so because they see their senior leaders model the same behaviours.





On the other hand, I have met principals who worry about what will happen if the data that they have held close to their chest are shared with staff. They share snippets of big data when they absolutely need to; but there is, generally, limited opportunity for teachers to engage in their own analysis or investigation of the data, and therefore the data do not lead to changes in practice in classrooms. By not being transparent and open about school data, leaders can unintentionally lead staff to believe that there is something to be feared with the data. If a culture of fear and ambiguity around data is modelled by the leadership team, teachers are often more reluctant to openly share their own class results, which impacts team planning and responsive planning cycles.

The data skills of teachers

Another significant challenge in running collaborative cycles of planning that are truly responsive to the needs of students is that, sometimes, teachers do not have a good understanding of student data, or do not have the confidence to make decisions about what constitutes good and useful data. When leaders ask teachers to bring samples of student work and evidence of the impact of the teaching cycle to meetings with their peers, they are relying on an assumption that teachers have a range of tools in their repertoire they can call on to make the best decisions regarding the type of data they will collect and bring. While many teachers do have these skills, some do not; and therefore, these staff members need to be supported and upskilled.

I recently worked with a team of teachers that brought the stanine results for the previous and the current years' Progressive Achievement Tests (PAT) Mathematics (see Australian Council for Educational Research, 2020) results as the only method of reflecting on the progress their students had made in Mathematics that year. While I believe that PAT offers fantastic information for schools and teachers about the progress of students, the teachers whom I

was working with did not have access to the percentages of correct responses, percentile results, or scaled scores from the PAT test. The stanines alone provided some information about the achievement of the students, and without a good understanding of the data, the teachers thought that this was enough. However, the stanine results were not specific enough to inform actionable and tangible modifications to the next teaching and learning cycle.

If the teachers had access to the questions or the strands in which students had most significantly, we would have been able to look for trends across the cohort and within each class. With this knowledge we could have modified the teaching and learning plan accordingly, in a way that helped students to build skills in the areas that they most needed through the next cycle. Instead, stanines data only confirmed that the cohort had achieved similar results to the previous year, meaning they had made good progress. While this provided affirmation for the teachers that their programs and teaching were effective, it did not provide the level of detail that was needed.

The challenge for schools and leaders

The focus on using data and evidence to inform practice in Australian education systems is unlikely to change. Interestingly, the most recent ministerial declaration on education in Australia, The Alice Springs (Mparntwe) Education Declaration (Education Services Australia, 2019), mentions the use of "data" and "evidence" almost twice as often as the previous Melbourne Declaration on Educational Goals for Young Australians (MCEETYA, 2008). Therefore, an immediate challenge for educators is to not only build the practical data-literacy skills of teachers, but to actively build learning communities that are open and transparent with the data. We are moving into a phase of data democratisation, where data is readily accessible to all staff at all times, so that they are empowered to use it where and when it is needed.

When collaborative teams approach cycles of planning by starting with data, and genuinely embrace open and transparent conversations about student progress and achievement, the planning cycle will become truly responsive and effective for all students.

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THE REFLECTIVE PRACTITIONER

- Where is your school situated in the different generations of business intelligence? Do you have a data democracy or are you moving in that direction?
- What steps can you take in your school to build a culture wherein staff are willing and open to talk about their class results? How can you make your sharing and conversation about data more open, and how can you maximise teachers' access to big data?

USE IT NOW

1. Model the transparency with data that you would like your teachers to demonstrate. Talk openly about data with your staff and talk about the challenges that you face as a school community.
2. Build a data democracy! Provide access to testing results (such as PAT and NAPLAN) and encourage teachers to use these in conjunction with their own collection to inform teaching.
3. Allocate time! Particularly while building skills, data collection and analysis is incredibly time consuming. If you want your teachers to do it well, show them it is a priority and support them by providing them with time to work with the data.
4. Encourage your collaborative teams to start with the data. Ask each other questions and solve challenges together.

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