

What we got from our work

Educator Story

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A conversation between Mr Raj Vasanthakumar (Year 10 to 12 Maths Coordinator) and Mrs Ha Pham (Year 8 & 9 Maths Coordinator), St Peter Claver College

Raj: In one of Peter Grootenboer's (Cluster Critical Friend) sessions he mentioned to us about how to question the kids in our classroom. I used to do it in the traditional manner of asking a question and then the children put their hands up and they would answer. His vision was instead of doing that, we needed to ask them to write an answer on a piece of paper. I adopted that and it actually worked quite well. While they are writing the answer you go around and give them some feedback on it, or help them write it, or get something out of it. You really see that almost the whole class is engaging in that question, unlike when they put their hands up. Later on, you go over the question again and probably draw on one of the kids, who you know is really shy, to answer because you have seen that their answer is good. So by being positive and drawing them in to answer the question you are giving them the confidence to speak in front of their peers. That is very good and I still use it. I will always use it.

Ha: I took Peter's advice re kids writing answers on small white boards, which were laminated sheets with white board markers. We did an activity with year 9 where we asked them a question and they wrote down the answer. Usually I would only have a few kids willing to write down an answer. In that session everyone had something written down on their white boards, a substantial amount working, happily doing it. It was really positive. Whether they thought it was like writing on the board, or different to writing in their exercise book, I don't know. The engagement during that year 9 session was so high, the class was transformed. It was a great idea and we still use that white board strategy as there was so much positive feedback from it.

Raj: Also I think that the writing on paper and white board strategies work because the kids are not going to have to give the answer to the whole class, especially if they think they have the wrong answer. By me seeing their work individually and building a relationship with them, their confidence grows. They are prepared to be wrong with me, but not with the rest of the class.

Raj: Another great thing was when we planned a session with Peter. He came to our school and planned with the year 8, 9 and 10 teachers. With my year 10 class he planned an open ended activity. My class is a high level group but I would never have thought to do such an activity and certainly not of that high level. The activity was calculating the greatest possible volume for a box. We gave some insight on how to explore it, and then they used Excel and other technology. After the first two lessons they taught me, they had gone beyond my level of understanding of Excel. Because it was open ended it gave them the opportunity to excel, to take it to a level further on, with some of my input, but mainly they were on their own exploring. That open ended task was very good and the class was highly engaged.

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Ha: I liked the aspect of teachers having the time to work together. I was in charge of the year 8 and 9 maths teachers. With the year 8 maths we had a bit of trouble with the activity we had planned. The activity did not work as well as we expected and having about five teachers working on it at different times, we were able to help each other by advising what didn't work and suggestions for the other teachers to try about what did (work). Plus after all the teachers had done the activity we met together and we discussed how to make it work better next time. It is really good that the teachers had that time together. We observed each other's classes to see how the kids worked and we gave feedback to the teacher. I guess while we are teaching we can't notice everything and having another person in the room watching how the kids are doing can give us a different perspective as well.

Raj: The observation was just to see how the kids engaged, how long at the start of the lesson, the middle session and the end. The level of engagement of the kids and then we were given feedback. It was good for us to reflect. The other thing I like about Peter's suggestions was in department meetings we normally discuss the administrative work and he suggested we should actually explore how we teach a particular topic, maybe listen to some questions. He said not everybody is as thorough with all the concepts of maths. Peter also suggested that we look at our kids as not 'my class' or 'your class', rather 'all our kids' as one whole group. This was another good point.

Ha: The other thing that I noticed was that Peter really encouraged the teachers' individuality as well. He said to us as long as we do our best, teachers can be the greatest influence in our kids learning. If we are happy and enthusiastic about teaching, kids just catch that.

Raj: They pick up on your enthusiasm and they become enthusiastic.

Ha: We may have our different styles and different strategies of teaching, but at the end of the day as long as we try our best with what we are comfortable with. We teach how we are comfortable with, whether using technology, individual learning or whatever. Peter's reinforcement of this was very encouraging.

Raj: Introducing the different strategies into the classrooms has increased the engagement of the kids, especially during the year 10 activity. Ben Potts was in my classroom during this and couldn't believe the amount of engagement. It was great having the observation come from someone else. I was amazed as well, usually because it is a higher level group, and most of the time my style of teaching is, I teach, they listen and they do the activity, their own learning. But this was a hundred percent engaged. Initially I introduced the concept but after that it was them. It was a fully engaged lesson by the kids, it was noisy, but they were all engaged in the topic. Those students who were particularly good at technology picked it up really fast and shared their knowledge with the rest of the class. It was very good in that sense, a lot of learning took place.

Raj: We looked at the progress of the Indigenous kids over a short period of time, but didn't find any evidence of whether or not *Make it Count* has worked or not worked because it was very short. But having said that I think our way of teaching has changed and that will have an effect on that as they come through. For the future, as far as our school is concerned, we are thinking about working with the Indigenous kids after school. Because I think for some of our kids the continuity is not there, because of attendance, because of home situations and so on. So if we can provide the afternoon sessions for them that might help. That is what we are thinking of doing.

Ha: Overall I think it was a successful for everyone involved, for all of us.

Raj: At the beginning of the year we had a *Make it Count* conference, it was a real big eye opener when we had the Indigenous expert sessions. It showed us the different ways of Indigenous learning and the practical sessions we had, were invaluable. There were maths experts with an Indigenous background, it was really good to see how Indigenous kids learnt.

Ha: Also after that conference I was a lot more conscious about bringing their background in. For Indigenous kids particularly, they like to have as a background knowledge, where they come from, their families and their community. So they can see the link, the reason why they do things. It's not just for Indigenous kid, it's for everyone, so when I am teaching and if there

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is something happening recently, I try to bring it in the teaching. I am more aware of this now and it will be a long lasting part of my teaching.

Raj: The other good thing was that the whole maths department was there at the conference. You hear certain myths, that Indigenous kids are not doing well, they are not probably clever, or whatever, those types of myths. The conference nicely exposed us to how wrong these myths are and it was good as a whole department to listen to that, and get a feel about being positive in how we see the Indigenous kids. That was really good. I thought that it was an eye opener for all of us as a group and that there are really smart kids there, but it may be because of other situations that they don't achieve that good level. So understanding that and then how we are going to tackle that in the future to make sure that they have their continuous learning over the five years they are with us, is the next thing for us.



Finding 1.4: Relationships

Know that fostering relationships grounded in genuine care and respect are essential to engagement.



Finding 3.8: Pathways

Include multiple pathways and approaches to learning that allow students to investigate a range of mathematical concepts and methods and strategies.



Finding 3.11: Represent

Encourage learners to represent their learning and thinking in a range of formats (eg. verbally, physically, symbolically and with technology and not just pencil and paper).



Finding 6.9: Improvement

Engage critically with external resources to gauge their appropriateness and relevance for Indigenous learners and compatibility with your aspirations for pedagogical improvement.