Learning through collaboration

Student Story

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David is a young boy in my grade 4 class. He is generally a very happy student who enjoys coming to school. He has a small but significant group of friends and he enjoys their company. He particularly likes playing outside and being involved in small group activities.

In maths, David tends to keep to himself and will not offer answers to questions when asked. He usually just shrugs his shoulders and says he doesn’t know the answer. I carefully try to pry information from him, but usually he just digs his heels in and says, “I don’t know”. He is easily distracted in the classroom and likes to spend time drawing and fidgeting with things on his desk.

I have realised that I need to make sure that all instructions are clear to all my students, especially David. I ask the students to relate the problem back to me in language that they understand. I will then ask David to repeat what another student has said, clarifying any points. I try to give them real life stories about a particular problem and this usually involves stories from my past and I make it funny – they love to hear about situations in my life that are real and funny.

I then use simple stories to solve problems and use the children in my class as part of the problem. They instinctively become more attuned to the maths sessions as they are involved and are a necessary component of the learning.

David now likes to work with his close peers and will participate in small group activities and achieve the required results for the session. I like to wander around the room and listen to the students as they discuss what the problems are about and how to solve them. Recently, Daniel and his team worked on an activity about decimals and mental maths on subtraction, using resources to help them.

Decimal numbers

We were doing a decimal activity and using dice and calculators.

The students had three different coloured dice and they threw a dice one at a time and recorded each score as a decimal number in the respective column.

Each number was represented as a decimal (i.e. 1 = 0.1, 2 = 0.2, 3 = 0.3, 4 = 0.4, 5 = 0.5, 6 = 0.6).

The activity asked the students to play several rounds and add up their scores as they went. Using calculators made it easier for the students to understand how decimal numbers can be added together. The aim of the activity was to see who could reach a score of 100 first.

Daniel took some time to understand the activity, but finally he said with a huge grin on his face, “I get it now”. He did go on to beat his opponent.

Using dice and having each number as a decimal made it simple for the student to understand. Daniel usually won’t discuss any maths questions in the class setting but will talk a little with his partner and teacher when prompted.

Mental maths subtraction activity using counters

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With a bingo style subtraction game, students rolled a dice and subtracted that number away from 10 and placed a counter on the right answer. The first person to completely fill their card was the winner.

Daniel picked up this activity quickly and he managed to fill his card as he answered each maths question.

Watching him play was great to see as he understood the activity. Having counters and a game card made it all the more interesting to play.

I have learnt to make instructions simple, to model the activity, go over instructions again, allow for the students to ask any questions and I emphasise that there is no silly or stupid question. It is better for small group work.

Finding 3.2: Learning goal
Practise explicit and scaffolded teaching with a defined and planned learning goal for each lesson that is shared with students to orient them to the learning.