

Practice example

Talking to improve written work in geography

St Boniface's Roman Catholic College is a specialist science and maths college – situated in Plymouth, but with a very wide catchment area.

The issue

Rebecca Blackshaw is the head of the geography department. She wanted year 10 students to become more confident in completing written answers. Rebecca thought that students' confidence would improve if they were given the opportunity to discuss the question prior to writing.

What they did

The students monitored their confidence using a "confidence level" sheet, which was kept in the front of books. When students were presented with a question that would be answered in writing they were asked to rate themselves as how confident they were at answering the question. They were then given the opportunity to discuss the question with different students in the class – this could be a friend, the person sitting next to them, or students on a different exam entry level. They rescored after this discussion and again after writing the answer.

They found...

On all but two occasions student confidence improved following an opportunity to discuss the answer. For higher tier students confidence increased by two points and for foundation level students by one point. There was no difference in rating depending on who the student spoke to.

Reflections

Students now discuss what they do more readily with the people around them rather than just turning to the teacher; they know this is a valued and acceptable way of learning. This is transferable to all subject areas and has been shared with the rest of the school.

Practice example

Talk about maths: improving communication skills in A-level maths

St Boniface's Roman Catholic College is a specialist science and maths college – situated in Plymouth, but with a very wide catchment area.

The issue

Sue Mills, maths teacher at St Boniface's, felt that in A-level maths lessons, while the students could produce the correct numerical answers they were less skilled at being able to describe the thought processes that enabled them to arrive at the solution. She felt this hindered their ability to see where errors had been made and to seek assistance effectively from peers or teaching staff.

What they did

Twenty-three boys in a year 12 A-level class were asked to rate how confident they were at communicating. The initial rating showed that the students were fairly confident that they could explain their methods to their peers or in small groups, but were less confident in communicating to the whole class.

The boys were placed in small groups, which changed each lesson, to try to find solutions to questions and explain their thought processes in the group – and then the whole class. Boys gave each other constructive criticism.

They found...

Few students in actual fact were initially confident enough to speak to the whole class. Friendship groups communicated well, but with less familiar people this was more difficult. The small group approach helped them to prepare answers and plan what to say – and to practise informally. This was particularly helpful for students with English as an additional language.

Reflections

This project has highlighted the need to develop communication for maths far earlier in the academic process and is now used in mathematics in other year groups. Students as young as 11 are now able to identify what makes a good presenter and also evaluate themselves in light of this. Teachers can more accurately assess where a student is having difficulties and discuss solutions.