

# Drama in science education

*Deborah Chetcuti*

## Drama helps students in the classroom to:

- understand better concepts which are too abstract for them to grasp through simple explanation;
- relate the science that they learn in school with their own understanding of the world;
- helps them understand better the social applications of science and develop positive attitudes towards science.

**Drama can be used to expand the awareness of students to enable them to look at reality through fantasy, to see below the surface of actions to their meanings.**

**Drama helps students to face challenges and crisis in the imagination before they find themselves overwhelmed by them in real life.**

**“Drama can be used to expand the awareness of students to enable them to look at reality through fantasy”**



**DEBORAH CHETCUTI,**  
B.Ed (Hons.),  
specialising in Biology in  
1989. M.Ed in Curriculum  
& Instruction at McGill  
University, Montreal in  
1992. Currently reading  
for a Ph.D in Education at  
the Nottingham Trent  
University.

It helps students to discover that they know more than they thought they knew. It allows them to discover resources that they did not know that they had.

It helps to bring out the best in students and can be used to build confidence and self-esteem especially in those students who feel that they are failures.

Drama encourages co-operation among students and teaches them how to mutually respect each other and communicate their ideas. Drama gives students 'voice'.

Drama can be used in the form of a pre-written script in order to introduce a lesson. It can be used to explain concepts in the form of role play or games, and it can be used for the revision of a particular set of information.

For example the following short sketch was used to introduce a lesson on disappearing chemicals:

**Narrator:** Water is very important for life and without it animals and plants cannot live. When we put something in water many different things can happen and today we are going to see what happens when we put some things in water. But let us first go with Cetta into her kitchen and see what is happening there.

**Cetta:** Today I feel like making myself a special drink - chocolate milkshake - my favourite. Let me see what I need: milk, water, sugar and some chocolate. Let me see what I need to do. I need to put the sugar in the milk until the sugar dissolves. Let me mix it so that it will dissolve more quickly. Good I can no longer see the sugar. Now let me add the chocolate until it too dissolves. I think just by mixing it will not be enough. Let me try heating it up a bit. Good now everything has dissolved, though I can still see the brown colour of the chocolate.

**Narrator:** But at that moment, the telephone rang and Cetta left the kitchen to answer the call. At that moment, Johnnie and her son walked into the kitchen. He drank the chocolate which his mother had prepared and decided to play a joke on her.

**Johnnie:** ...mmm...that was delicious...let me see if the one I am going to prepare for mummy will be just as good. Let me see...what can I do so that she doesn't notice that I've changed things. Let me see...you have to add some sugar. I think that instead I will add some salt. Good the salt has disappeared, it has dissolved just like the sugar. Now let me see what I can add instead of chocolate. I

know some soil

**Narrator:** Unfortunately, Johnnie's plan did not work so well. The soil would not dissolve in the water. He tried mixing and mixing and heating up...but now use, he could still see bits of soil in the milk.

**Johnnie:** What's happened here. The soil will not dissolve. I think that the soil must be different from the sugar and the salt as I can still see it in the milk. I wonder why?

**Narrator:** Johnnie heard his mother put down the phone and he went to hide behind the cupboard. His mother had taken off her spectacles and so she did not notice what Johnnie had done. She picked up the glass and started to drink the milkshake which Johnnie had prepared...

**Cetta:** Ughh...what's this...it's horrible. I think it's that naughty Johnnie. Where are you. You mischievous child. Now you'll see what a spanking you're going to get...

**Narrator:** So Johnnie got a spanking and his mother had a bad taste after drinking her milkshake. But Johnnie still continued to think and he asked his mother why the sugar and salt had dissolved but the soil did not. Maybe after today's lesson you can answer Johnnie's question for him.

*Three other examples of drama which can be used in the classroom are*

## The Hot Seat Drama

The hot seat is a chair placed at the centre of a semi-circle. The person in the chair is the expert. For example, it can be a press conference about building a power station with the person in the chair being the environmental expert and the rest of the class being journalists at the press conference. This can be used for the exchange of scientific information, to explore social attitudes or to debate the role of science in society.

## The Aeroplane Drama

Here everyone is in pairs, the seating pattern is arranged as in an aeroplane with two rows of chairs and an aisle down the middle. The students come in from the back of the classroom and enter the aeroplane, in groups first group A and then group B. Group A could have been assigned to carry out some research on a particular topic and group B research on a different topic. You then explain that the flight will take twenty minutes and in those twenty minutes the two students (scientists) are asked to exchange any relevant information they had collected about the topic assigned. This can be used to share knowledge when students have carried out different projects or assignments. It can also be used for revision.

## The Panel of Experts

Here it is the panel of experts seated before an audience. The experts give an individual presentation and then have a discussion with the whole class.