SCIENCE

CONSTRUCTIVISM IN SCIENCE

OVERVIEW

The learner is not an empty vessel waiting or expecting to be filled. It is impossible to transfer an idea intact from teacher to student, because the student might construct their own knowledge based on the new information we have given them and their current understandings based on prior understanding and experience. Teaching is thus never just telling. Instead we sometimes use the term ‘scaffolding’ to convey the idea of providing specific activities and experiences to help students construct their knowledge correctly.

LANGUAGE

English

TIME

2.00—4.30pm

DURATION

2 hours and 30 minutes (1 session)

TARGET PARTICIPANT

- Upper primary science teachers
- Lower secondary science teachers

METHODOLOGY

- Open ended discussion - difficult topics to teach
- Pre-requisites and also what context would give students at that level that prior experience
- Facilitation on how to link topics/ideas together to be coherent and making sense
- Question-and-answer with the facilitator

LEARNING OUTCOMES

After working through this course you will be able to:

- understand why some teaching approaches are better than others in different situations;
- enhance students' learning experience in sciences
- recall some of the underpinning principles at the heart of good teaching and learning; and
- know how to access further support and resources.

CONTENT

- Direct interaction
- Constructing meaning
- Using models and/or practical demos and/or videos (P.O.E. style)
- Enquiry model - deductive and inductive