The joy of learning – skills vs. challenges

J. Benade, B. Hutcheson, P. Haas, M. Colley

Technology has emerged as one of the greatest factors affecting change in our lives. A programme is designed that provides children with the necessary skills to approach our technological society with confidence. The objective is to develop learners who are capable of doing things, not repeating what other generations have done, but learners who are creative, inventive and who discover.

The programme involves presenting learners with a need, challenge or problem and supplying them with a variety of materials that they can use, put together or construct something with to solve the problem at hand.

Real research, individual learning styles and true co-operation is encouraged, often using the actual school themes as our vehicle. Learners are presented with a range of experiences and situations that help them to develop their design and technological capabilities.

Basic and advanced didactic equipment is used which includes bricks, gears, pulleys, motors, pneumatic pumps and sensors to encourage children to approach problems creatively. These construction materials enable children to model their thoughts in 3D forms. Problems are solved in different ways, thus enabling the learners to develop their thought processes.

As well as encouraging thought processes, interaction with these materials allows many manipulative skills to be developed. Working alongside other children helps to develop social interaction and a child’s interpersonal skills. Collaboration between children is encouraged thus helping them to learn how to cooperate together in carrying out different tasks. Working in this way also helps their communication skills and confidence.

The programme is based on the belief that learning should take place through construction rather than instruction, and we are confident that the educational materials used, not only stimulate and encourage the learners, but also greatly accelerate the conceptualization process.

“Our programme not only prepares and helps learners to do well at school - but also after school.”