The Role of Conceptual Understanding in Learning

The primary aim of the QuickSmart intervention is to develop automaticity. While developing automaticity, QuickSmart lessons emphasise the development of conceptual understanding. Conceptual understanding is ensured by explicitly teaching strategies that emphasise the key concepts underpinning the academic skills being taught.

In the QuickSmart mathematics classes, for example, students are explicitly taught strategies that develop their understanding of key concepts such as place value. QuickSmart mathematics sessions aim to develop students’ general number sense – their ability to identify and use number patterns, their understanding of the meanings of and relationships between the different operations, etcetera. These strategies are discussed explicitly and inform all the practice exercises completed by the learners.

QuickSmart mathematics lessons thus begin with a review of the current set of Focus Number Facts. In this initial review, students are encouraged to demonstrate their understanding of the required processes by discussing and explaining the strategies they are using. If students do not display reasonably proficient understandings, then QuickSmart instructors use lesson time to develop the learners’ understanding to the level where they are proficient enough to benefit from practice.