

METACOGNITION AND THE LEARNER: STRATEGIES FOR BETTER ACADEMIC FUNCTIONING, THINKING AND LEARNING



~ Estelle Brettenny ~

A person who is metacognitively aware can step back and evaluate both **HOW** he/she is thinking and **WHAT** he/she is thinking (Moonsamy in Green, 2014). This sounds relatively easy and like common sense but unfortunately this skill is not part of the daily functioning of the average learner in South Africa. Many educators, professionals and parents also do not understand what metacognitive awareness and metacognition mean although there is a growing need amongst pro-active educators and professionals for training that can equip them with strategies to support learners of all ages to cope more effectively with the on-going curriculum and academic demands. This article will briefly motivate why more metacognitive support is needed, what metacognitive support entails, the benefits of metacognitive support and lastly provide feedback of training that has taken place in 2015 and 2016 to empower educators and professionals with knowledge and skills to provide more metacognitive support.

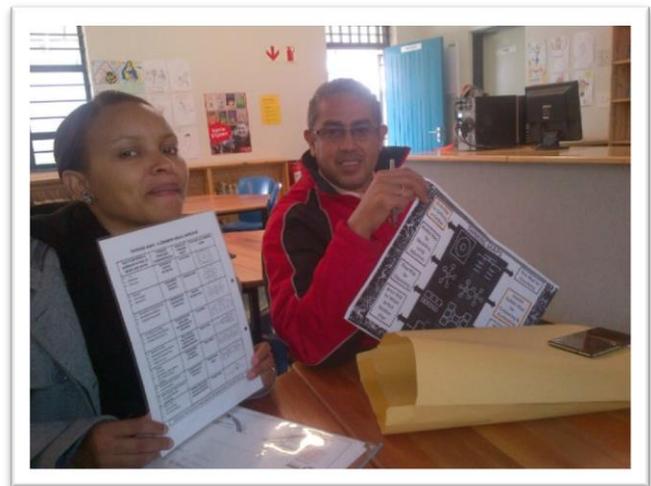
Why more metacognitive support?

- There is a growing number of learners that struggle academically or lack effective skills to cope academically;
- Many learners (even top students) receive extra lessons, go for therapies, have tutors, see psychologists or take medication;
- Parents spend large sums of money on “extra help” BUT many parents cannot afford to do this;
- Learners often depend on extra lessons/tutors and become passive learners instead of developing independent learning skills, better thinking skills and strategies;
- Teachers do not always have “growth mind sets”, they do not always believe that they can make a difference or do not equip learners with better skills;
- There are many hidden context, curriculum/task and learning material barriers that block thinking and learning;

- Many teachers, tutors, parents and therapists lack understanding, knowledge and skills re the ‘hidden needs of learning’ and how to support learners re these needs;
- Limited, if any, attention is given to the development of processes & strategies for effective learning/thinking to occur;
- Entrepreneurs are developing products and services to support learners and parents by summarizing their work for them, writing orals and doing research for projects at an affordable monthly or yearly cost. Many South African parents are buying these products but in the process their children might not be developing or practicing their reading skills, summary skills or metacognitive skills.

What is metacognition and metacognitive support/intervention?

According to Moonsamy (in Green 2014) metacognition includes self-appraisal (learning to stop, think and reflect on the quality of one’s thinking) and self-management (monitoring one’s thinking and making choices about the appropriateness of specific strategies for specific tasks). Metacognitive support therefore aims to help learners to develop metacognitive awareness (to become aware of their thinking), to discover a common language for thinking as well as metacognitive strategies/skills and visual tools such as Thinking Maps (Hyerle, 2011). Metacognition is a broad executive skill and it is important for all types of cognitive activity. It is however not automatic for all people and must be mediated explicitly and educators and professionals require training to do this effectively. It is vital to have user friendly visual aids/posters that educators and professionals can use to help them on the journey of providing metacognitive support and intervention.



What are some benefits of having more metacognitive strategies and skills?

- Metacognition improves learning and leads to real learning;
- Learners become more independent as learners when they have better metacognitive strategies;
- Learners with well-developed metacognitive skills can think through problems and select appropriate strategies;

- Learners can monitor and direct their own progress and reflect about what they are doing;
- Learners with a variety of metacognitive skills perform better in exams and complete work more effectively;
- Metacognition leads to transfer of learning;
- Metacognition helps learners make the most of their mental resources and may compensate for cognitive limitations.

Training in the West Coast District

- A pro-active mother (and Deputy Chief Education Specialist) observed some intervention sessions that her son was receiving from an occupational therapist. She realized that the metacognitive strategies mediated to her son, were desperately needed by hundreds of learners in the West Coast Education District. She managed to make four training events possible during 2015 in this district.
- The four training sessions, presented by Estelle Brettenny, took place in Vredendal, Citrusdal, Piketberg and Malmesbury.
- Learning support educators, psychologists as well as educators from thirteen primary schools were part of these training events: Ebenhaeser Primary; Klawer Primary; Lienberberg Primary; Maskam Primary; Naasdrift Primary; Nieuwoudt Primary; Olifantsvallei Primary; Cederberg Primary; St Thomas Primary; Swartland Primary; Vergenoeg Primary; Vredendal North Primary; Vredendal Primary; and Uitkyk Primary.
- Four high schools were part of the training: Schoonspruit Secondary; Steynville Secondary; Vredendal High School; and Vredendal Senior Secondary.
- A training session was also conducted by Estelle Brettenny during February 2016 at Dirkie Uys High School.
- The training was rolled out further (at five schools) by two Learning Support Advisors during 2015 and the second term of 2016 at Anne Pienaar Primary; Dirkie Uys Primary; O.J. Erasmus Primary; Steynville Primary; and Veldrif High School.
- Further training will also be done by the Learning Support Advisors in the second semester of 2016 at Augsburg Primary; Brandenburg Primary; Cederberg Primary; Citrusdal Primary; Elizabethfontein; Goedverwacht Primary; Noordhoek Primary and a few other high schools.

Training through IMPACT Learning

IMPACT Learning is an innovative training company directed at health care professionals, teachers and parents. Their vision is to bring all health and educational professions the latest key trends in child education, development and practice management. Estelle Brettenny was invited to present a training event titled



'Metacognition and the Learner' at three centres in South Africa in 2016. The Johannesburg event in March 2016 was attended by 75 people and the Cape Town event in April 2016 by 36 people. The next event will be in Durban in July 2016.

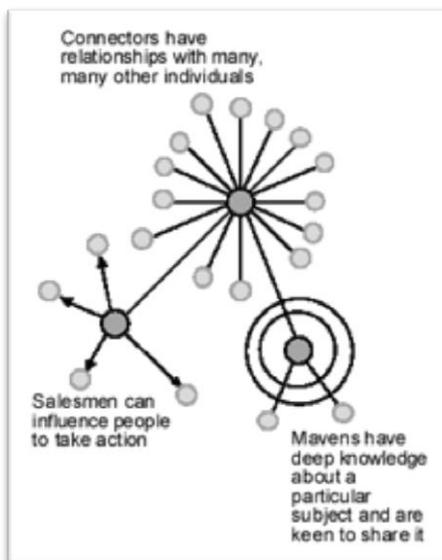
Training at Winterton in KZN

A training workshop on Metacognition was also organized by a pro-active teacher of Winterton Primary School in the Drakensberg Mountains. On 7 May 2016 Estelle Brettenny presented the training that was attended by about 40 educators, professionals and a few parents from various schools in the area.



Outcomes of Training

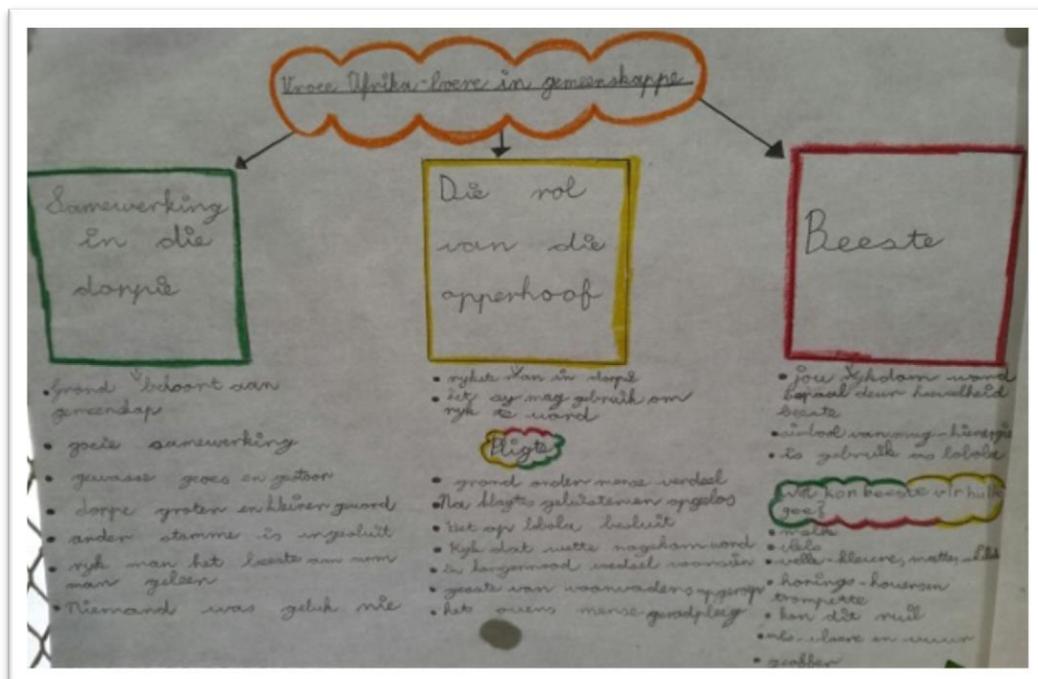
According to Gladwell (2000) you have to create many small movements in order to create one contagious movement. He believes *"The tipping point is that magic moment when an idea, trend, or social behaviour crosses a threshold, tips, and spreads like wildfire. If anyone wants to start an epidemic, then he or she has to employ Connectors, Mavens and Salesmen; he or she has to find some person or some means to translate the message of the Innovators into something the rest of us can understand."*



- Two very dynamic salesmen (ladies)/connectors initiated the IMPACT Learning events on *Metacognition and the Learner* that have definitely stimulated an increased awareness amongst the educators and professionals at the events to equip learners with metacognitive strategies and skills.
- One person initiated the Winterton event and helped to empower a whole group of people. The participants were very positive in their workshop evaluations and the only negative thing that came up

over and over was that they would have liked more time during the training. Hopefully they will take the knowledge and skills they gained forward to their individual schools. No feedback was available yet when this article was written.

- The first four training sessions on metacognition in the Wes Coast Region was initiated by a 'connector/salesman (lady)' and with the help a few 'mavens/salesmen (sales ladies)', who were the data banks and had the knowledge and social skills, as well as the passion to help others, the message of metacognition was spread to more schools in the West Coast Region and it is still busy spreading.
- In many of the schools in the West Coast region the process of creating metacognitive awareness and helping the learners to develop metacognitive strategies (especially by using Thinking Maps) is taking time and some positives and some challenges have been reported:
 - There is definite evidence in classrooms and in the learners' books that the educators are making attempts to teach the learners to use Thinking Maps;
 - In some schools the decision was made to start with one grade and/or in a specific subject with the mediation of metacognitive strategies such as the Thinking Maps;
 - Many learners lack in basic underlying skills such as reading skills and comprehension skills and are not capable of identifying main ideas and key words. As a result they struggle with the Thinking Maps;
 - Some educators have made adaptations with weaker learners and are grading the process of using Thinking Maps, e.g. by preparing the Thinking Map beforehand and then helping the learners to complete the map with the essential main ideas as the learners are not yet capable of using Thinking Maps independently;
 - Although the process is slow and taking time, certain benefits have become clear, e.g. learners are starting to understand the thinking processes connected with the different Thinking Maps and are motivated when they see how a few pages of work can be organized into one page via the use of a Thinking Map.



- The Thinking Maps might not always be theoretically hundred percent correct yet, but with continuing support and training by the Learning Support Advisors the educators and learners will develop their level of thinking and become better thinkers.
- The Learning Support Advisors reported that many educators have been exposed to memory maps (geheuekaarte) as part of CAPS, but they are emphasizing to the educators that Thinking Maps are different and that the learners must become aware of their own thinking processes.
- The greatest challenge is to make the implementation of metacognitive strategies sustainable and to make it part of daily classroom practice.

Creating metacognitive awareness and developing metacognitive skills is a powerful message, but it is the role of every connector, maven or salesman to make this message 'sticky'.

Gladwell (2000) argues that stickiness is not random, but a result of intense audience research.

References

Gladwell, M. 2000. *The Tipping Point*. Little, Brown and Company.

Green, L. 2014. *Schools as Thinking Communities*. Van Schaik Publishers.

Hyerle, D. 2011. *Student Successes with Thinking Maps*. Corwin Press.

Estelle Brettenny, B.OT., M.OT., PDME., is an occupational therapist in private practice and an independent trainer and consultant with 36 years of clinical experience. For the past 16 years she has been specializing in meta-cognitive therapeutic intervention for older primary school learners, high school learners and adult learners. She is an experienced trainer in the mediation of thinking skills via the Cognitive Enrichment Advantage Approach (CEA) as well as Thinking Maps and has been trained in various other approaches for developing thinking skills. She has been a board member of The International Association for Cognitive Education (IACESA) for more than 16 years and is the Immediate Past President of IACESA as well as a founding member of Thinking Schools South Africa (TSSA).