

SUMMARY OF THE REVISED EYEGYM APPROACH

1) INTRODUCTION

The Driver Bureau, as a licenced holder of Eyegym visual performance software, has been working with Sasol for over a year to introduce the approach into the Sasol environment.

It also needs to be said that the introduction of assessments of reaction time as part of psychometric testing has caused an unease among some managers who are not sure what to do with information on personnel who score badly. Managers as a result, could be forgiven for not wanting to know.

This document is a summary of the conclusions reached so far and we believe makes a positive contribution to the challenges being faced.

2) BACKGROUND

Visual performance is the ability of a person to identify what he or she is looking at, assimilate the relevant information and decide. The speed at which this is done can also be a factor, especially under operational conditions.

It should be noted that visual performance varies greatly from person to person and is generally affected by age and health. It can also be improved through exercise.

Visual performance has applicability at Sasol in two areas:

Risk Assessments (not at speed)

Industrial companies often have safety methodologies involving seeing and recognizing hazards. Sasol for example employ the SLAM methodology; Stop-Look-Assess-Manage. The LAM part of the SLAM equation is closely tied to visual performance and subject to errors such as, "I never saw the hazard", "When I looked the hazard wasn't there."

It appears that the implementation of SLAM is often hindered by these and very similar issues or the failure of some people to take it seriously (Lowe, 2017).

Exposure to Operational Hazards (usually at speed)

Driver training use variations of variations of a methodology, similar to SLAM called SIPDA (See-Identify-Predict-Decide-Act). This is taught by driving schools all over the world, to evoke a safe work orientation of drivers.

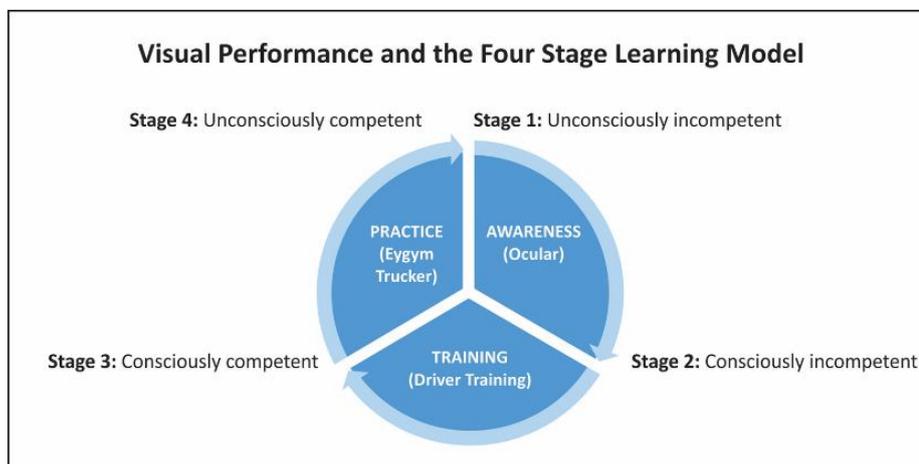
3) RATIONALE

It is logical that the Implementation of SLAM or SIPDA should consider a person’s visual performance ability to carry out these techniques before expecting them to adopt them.

Our work with Sasol has shown that a four-stage approach will yield maximum benefit, by improving the effectiveness of SLAM and/or SIPDA by improving the visual performance of high risk individuals.

4) FOUR-STAGE APPROACH

The four-stage learning model is frequently ascribed to Maslow, and is a model that has been used to describe how people learn. It is highly applicable to the situation at hand.



GOING THROUGH THE STAGES

Stage 1-2 Invoking Awareness

The learning model explains that the beginning of learning and competence is self-awareness. A person who believes that he has an excellent ability to make decisions based on what he sees is likely to be less receptive to the techniques of SLAM and SIPDA. Where belief in this ability far exceeds his actual ability in an individual, we have a risk.

Using the ocular assessment product, Stage 1-2 moves the candidate from being unconscious of his weakness (unconsciously incompetent) to being aware of his weakness (consciously incompetent).

The Dunning Kruger effect states that most unskilled people over-estimate their ability, showing how important the four stages are.

Stage 2-3- Training

Now consciously incompetent, candidates are ripe for being taught or retaught about SLAM. Practically, their weakness should attract a few seconds longer on the S part of the SLAM equation. Similar logic can be applied to the teaching of SIPDA.

Our research in fuel tanker drivers show that drivers with weak visual performance scores who employ SIPDA properly together with caution, can still be good drivers. This is encouraging news as it shows that risk associated with poor visual performing employees in the mines can managed as well.

Stages 3-4 Eyegym Trucker

Eyegym Trucker is computer-based software that, with repeated exercises, has a dramatic effect on visual performance and reduces the associated risk.

Because training happens daily for three months of the year, in 15-minute sessions, it is often difficult to implement. For this reason, it is recommended that the “weakest” 20% are trained in this manner with focus on the unconsciously incompetent.

Eyegym have an off-line version that is becoming available and should be investigated as taking the technology to the miner, not the other way around, should make training easier.

5) CONCLUSION

In summary, the following is proposed:

- All candidates should go through an annual induction should take the ocular assessments.
- All candidates should be trained with their company’s version of SLAM and or SIPDA but trainers need to be closely aligned with the training.
- Problem and high-risk individuals should be identifying and then asked to train on Eyegym Trucker.

Andrew Crickmay

14 September 2017

andrew@driverib.com