



THE FUTURE OF LSEN EDUCATION

WHAT DOES THE FUTURE LOOK LIKE?

WHAT DOES THIS MEAN FOR WHAT WE DO TODAY?

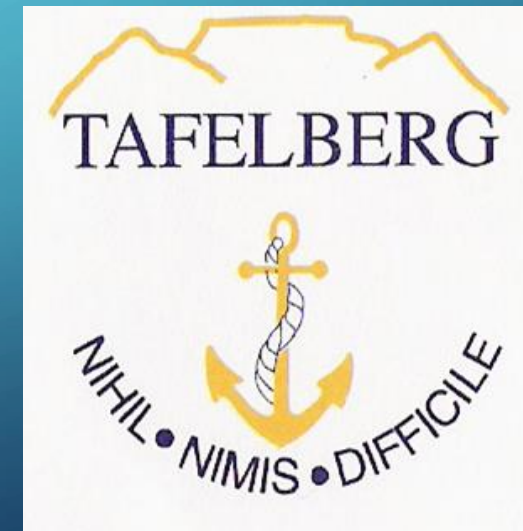
PRESENTERS

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THE POSSIBILITY IN TECHNOLOGY



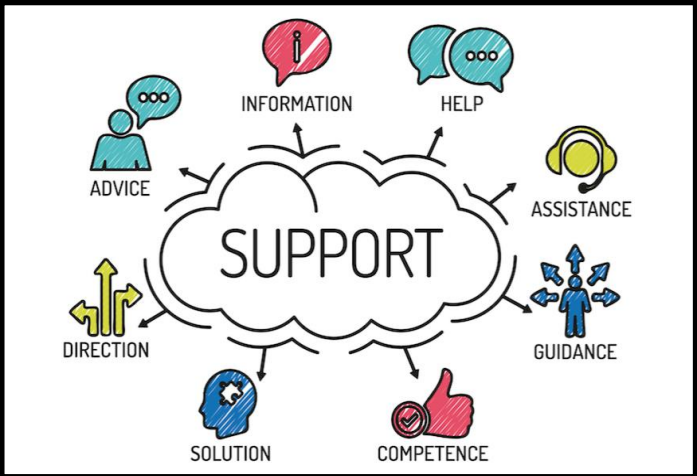
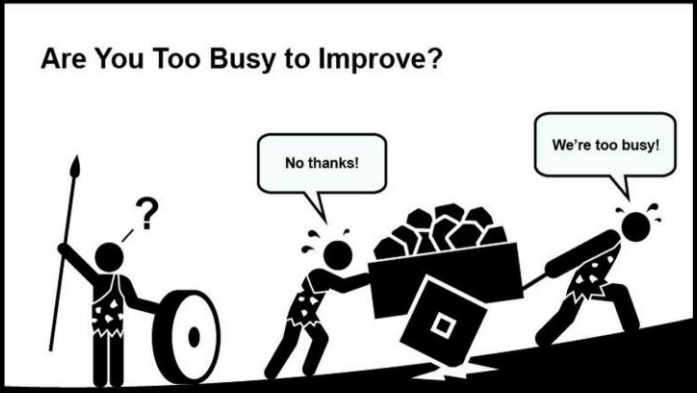
- **The Great Equalizer**
- **Increase in Motivation**
- **Break Down Barriers to Learning**
- **Decreased Anxiety and Frustration**
- **Independence in Learning**
- **Break free of 'one-size-fits-all'**
- **Experiential learning**



FUTURE TECHNOLOGY & SPECIAL NEEDS

“NEW” TECHNOLOGY

- TTS & STT
- Digital Textbooks
- Braille-enabled Smartphones & Apps
- Seizure Warning Belts
- Virtual Reality



ACCESS TO NEW TECHNOLOGY & TIME FRAME

- Technology adoption in SA schools – slow
- Training
- Continued effective support

THE ROLE OF THE TEACHER

- **Technology cannot & does not replace teachers**
- **Technology enhances the ability of teacher to reach students.**
- **Large classes**
- **Difference needs levels**
- **Training, training, training**



TECHNOLOGY & FINANCES

- **Cost of new technology**
- **Low cost devices now available**
- **Labour VS Technology**
- **Cost of connectivity – WiFi & Data**



REFERENCES

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THE AFRICAN LANGUAGES PILOT PROJECT

CSIR
our future through science



**Western Cape
Government**

Special Needs Education

Pros

Cons



Pros

◦ I understand what they are, asking me in my test papers much better.

Pros

The ~~plea~~ pros are that it helps me to listen to work better as it helps me to understand it more.

It also helps me to read questions probably

Pros - I type, so it makes me go fast with my work because if I write I take slow and most of the times I don't finish my paper, but now with typing I finish my papers, and then I still have time to change things and go over them.

pros - its convenient and helps me
alot. I am so happy I can
now write in my register
class, its also teaching me
a responsibility to take
care.

Pros - It helps with the reading

It makes it easier to write

It helps me ~~see~~ spell

It puts me on level playing fields with the
kids that can read

Pros

→ easier to type as many
teachers struggle to read
by handwriting

→ Tips re with my spelling

→ of the tablets, everything
is simple

→ sound is clear, no clicking

Cons - there are not really
much cons, actually no
cons at all, ~~but~~

CONS - Took me a bit of time to
learn how to use.

Easy to switch between Afrikaans and English

We don't look different from other learners using devices

Unlimited re-reading of texts and work if necessary

Easier for me to draft and edit my work

I am more independent and confident with my work

I can work at my own pace

The headphones cut out much of the background noise, so I can concentrate better

Pros

Cons

- Teaching them a life skill – varsity etc
- Technology is a motivator
- In many cases it improved their fine motor skills
- Cost effective – payments for scribes etc
- Assessments are more reliable and fair, as no human influence

- Performance needs improvement – 4 core 4G ram needed to run effectively with multiple documents open at same time
- Home use can be problematic since connectivity may not be available





INTERVIEW : JAN KRIEL LEARNERS





THE TABLET USED DURING ASSESSMENTS



**WELCOME
TO THE SCHOOL
THAT CARES**





**LEARNER AND TABLET
AT WORK
IN THE CLASSROOM**

Welcome ladies and gentlemen

Our presentation focuses on a CSIR/WCED Directorate Spec Educ pilot project known as the African Voices Project (Qfrenzy), which was rolled out in 2018

To date software such as Claro-read / Dragon speak etc was only available in English and then only in an American or digital accent which made it difficult for some learners to understand – now learners can listen to text in their home language and in a familiar accent

This presented an amazing opportunity for learners with special needs

In reporting on the success or not of this project, our feedback will be more qualitative and than quantitative

The equipment / tablets was funded by WCED + 3 schools targeted to test it

Project is to test effectiveness of the African Languages software within Special Schools who cater for learners with special needs - can it be used to support SLD learners specifically (readers, scribes etc) ???

Objectives :

- **Can it be used sustainably for learners with SLD**
- **Can it improve access the curriculum for SEN learners in the classroom + at home – e-textbooks**
- **Can it assist in making the learning process more inclusive for learners using alternative assessment accommodations**
- **Can it have positive impact on learners self-confidence**
- **Can it be used to write formal assessments and produce credible and valid results/scores without unduly advantaging those learners using the devices**

Due to the context of our schools (LOLT Eng/Afr) we concentrated on Eng + Afr languages

- Using Kobus Afr voice – better accent (Maryna)
- Learners chose own Eng voice – mostly Daniel
- Digital textbooks will use Claro read to keep learners with the familiar
- Problem areas (cons):
 - not enough storage space
 - wireless connection is poor
 - camera : must disable it/not have it
 - performance needs to be improved to 4 core / 4 G ram as minimum to run programs effectively – lower specs will make system slower as multiple docs are opened at same time in exams
- System must be window based – androids not able to read every typed doc / Apple too costly and does not link well with other systems
- Digital textbook licences
- Poorer schools will need huge assistance : purchase of devices, internet connectivity, insurance, digital textbook licences, IT system at school