Faculty of Education
Guiding tomorrow

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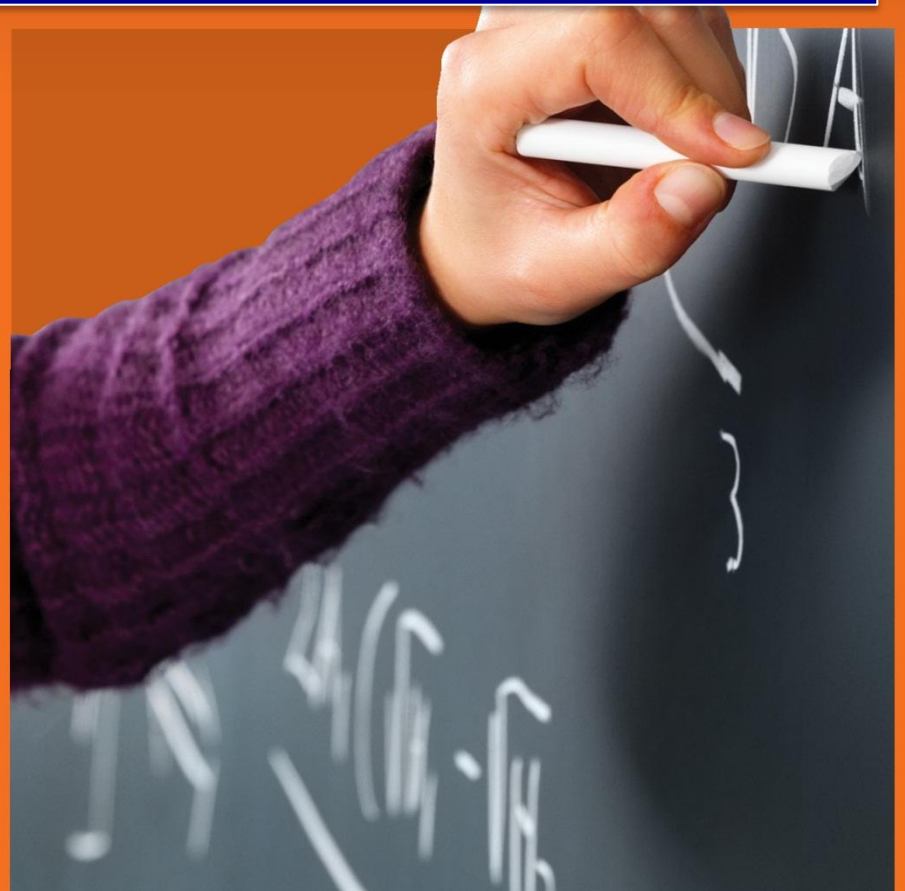
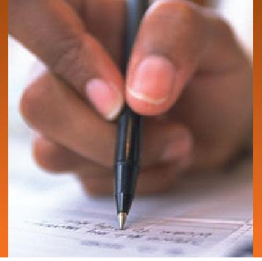
for tomorrow

Engagement: Herman Ohlthaver Project

Dr André du Plessis
2014



What led to the establishment/initiation of your project? (Background Information)

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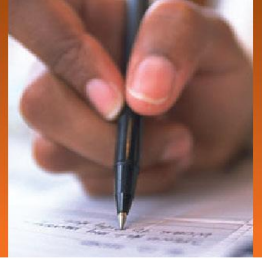
- Principals approaching us: Great need for ICT training
- Sponsors approaching us

Duration

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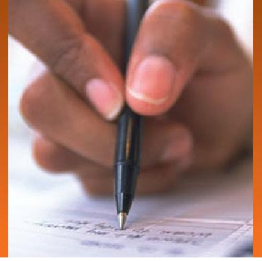
- Since 2008

Engagement categories

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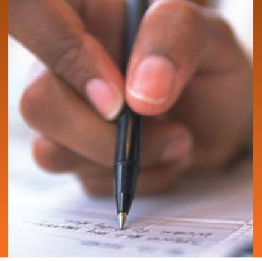
- **Project focus on ALL engagement categories**
  - Community Interaction,
  - Service and Outreach,
  - Teaching and Learning,
  - Research

Our Sites

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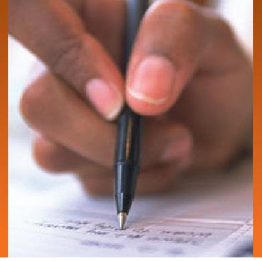
Beneficiaries (Target Groups)

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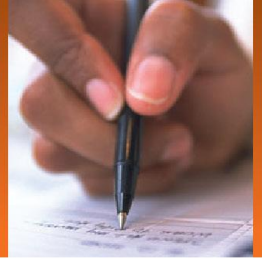
- **Teachers and learners of schools in**
  - La Trobe Primary,
  - Rietberg Primary,
  - Zanoxolo Primary and
  - Sandisulwazi High School in Paterson
  - Zanoxolo Primary is the only urban school located in Motherwell, Port Elizabeth.
  - Emafini & Emfundweni with technical support

What have we been doing?

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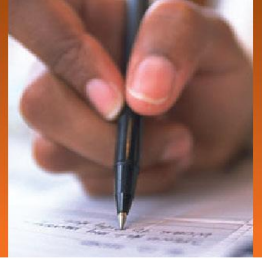
- **Trained teachers from 8 schools in basic:**
  - Word
  - PowerPoint
  - Email
  - Internet search skills
  - Cyber hunting teaching strategy
  - Mathematics software
  - Reading Skills
  - Cartoon Story Maker
  - Paint
  - Skype Science Patterson
  - Cami Maths (Paterson – SAB)
- **Fixing computers**
- **Anti-virus**
- **Networking**
- **Wireless Internet connectivity**
- **Workshops on support, etc.**

WIRELESS INTERNET PROVISION

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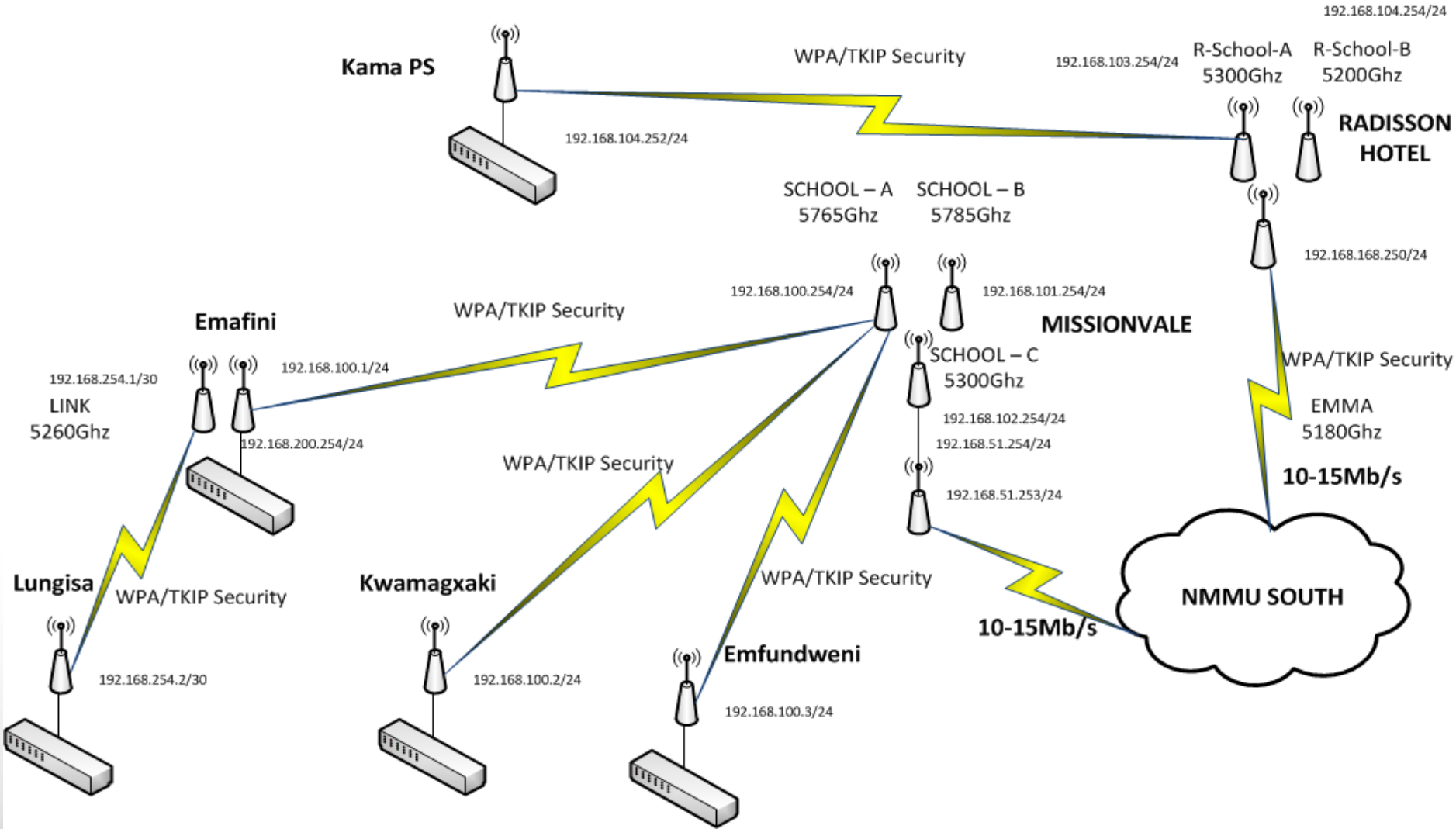
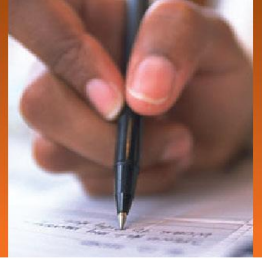
MISSIONVALE – SCHOOLS INTERNET PROJECT



Partners [Stakeholders]

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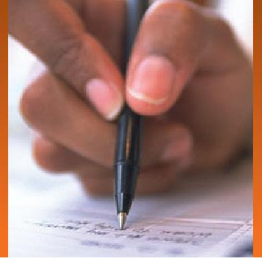
- **Internally at NMMU**
  - Planners
    - Preston Geswindt (Coordinator)
    - Dr André du Plessis
  - Coordinator at Paterson
    - Viv England
  - Technical support
    - Eldrige van der Westhuizen
    - Stephen Viljoen
    - Grant Abbot
    - Creswell du Preez
    - Connie van Zyl
  - Overall Support
    - Prof Paul Webb
  - NMMU Trust
    - Renita Affat
- **Externally**
  - Herman Ohlthaver Trust
  - SAB

Yearly Report

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Hermann Ohlthaver Trust

NMMU Report of ICT Training and Support

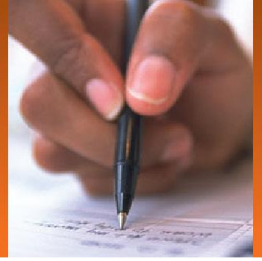
February to August 2014

Faculty of Education

- [Click here for FULL REPORT]

- Apply ICT aspects in Media Module & Maths Method Modules
- Enable students with ICT skills at school level (not mere computer literacy)
- Research Papers
- Local organised conference in 2012 at NMMU
- Presentations: Locally, Nationally & Internationally – even as Key Notes Speaker

Adding value to Teaching and Learning, Research and Service activities

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- Applying the previous has lead to receiving:
  - Emerging Teacher of the Year: Faculty of Education (2010)
  - NMMU Teacher of the Year (2011)
  - Teacher of the Year: Faculty of Education (2011)
  - NMMU Faculty of Education: Emerging Researcher of the Year (2012) [Field of Research: ICT in Education]
  - NMMU Emerging Engagement Award for ICT: Best Emerging Engagement Project for ICT in Education in Schools (2012) [Field of Engagement: ICT in Education]
  - HELM LEAD (Higher Education Leadership Management) HESA (Higher Education South Africa) Scholarship (2013)
  - NMMU Distinguished Teacher Award: Prestigious award Awarded for Five Years (2014)

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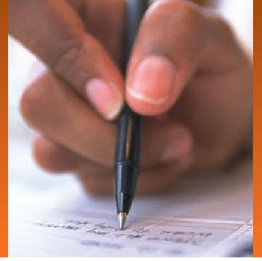
❑ *Research published in ISI an IBSS indexed journals*

- Du Plessis, A., & Webb, P. (2012). Teachers' perceptions about their own and their schools' readiness for computer implementation: A South African case study. *Turkish Online Journal of Educational Technology, 11(3), 312-325*
- Du Plessis, A., & Webb, P. (2012). A teacher proposed heuristic for ICT professional teacher development and implementation in the South African context. *Turkish Online Journal of Educational Technology, 11(4)*, 46-55.
- Du Plessis, A., & Webb, P. (2012). Digital immigrant teacher perceptions of an extended Cyberhunt strategy. *Australasian Journal of Educational Technology, 28(2), 341-363.*
- Du Plessis, A., & Webb, P. (2011). An extended Cyberhunts strategy: Learner centred learning-by-design. *Australasian Journal of Educational Technology*, *27(7)*, 1190-1207.
- *DHET accredited journals*
- Du Plessis, A. & Webb, P. (2011). An extended 'learning by design' framework based on learner perceptions. *African Journal of Research in Mathematics, Science and Technology Education,* 15(2), 16-29.
- Du Plessis, A. & Webb, P. (2008). Generative use of computers: Promoting critical outcomes of the South African curriculum. *Education as Change*, 12(1), 15-27.

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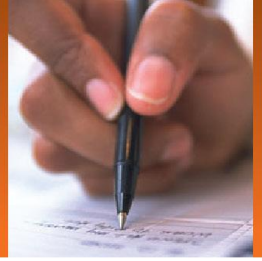
- ❖ Du Plessis, A. & Webb, P. (2011). An extended 'learning by design' framework based on learner perceptions. *African Journal of Research in Mathematics, Science and Technology Education,* 15(2), 16-29.
- ❖ Du Plessis, A. & Webb, P. (2008). Generative use of computers: Promoting critical outcomes of the South African curriculum. *Education as Change*, 12(1), 15-27.

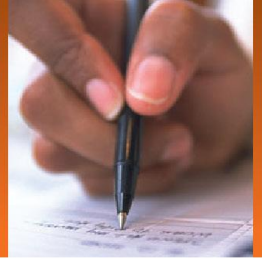
❑ *Articles in refereed journals*

- ❖ Du Plessis, A. & Subramanien, B. (2014). Voices of despair: Challenges of multi-grade teachers in a rural district in South Africa. Educational Research for Social Change, *3*(1), 20-36.
- ❖ Du Plessis, A. (2013). Wikis and Power Points as cognitive development tools in Scientific Literacy: A Proposed Heuristic. *Problems in Education in the 21st Century*. *57*, 25-47.

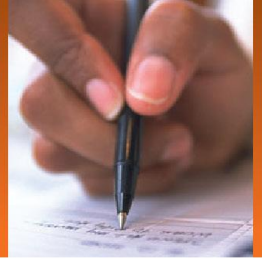
❑ *Keynote conference proceedings*

- ❖ Du Plessis, A. (2014). An ICT learning-to-design heuristic to promote science learning: using PowerPoint in an "unintended" mode. Keynote presented at the IXth IOSTE SYMPOSIUM FOR CENTRAL AND EASTERN EUROPE Science and Technology Education for the XXIst Century at the University of Hradec Králové in the Czech Republic, 15 to 17 September 2014.
- ❖ Du Plessis, A. (2013). Wikis and PowerPoints as cognitive development tools in Scientific Literacy. Keynote presented at the International Scientific Conference, "Information & communication technology in natural science education – 2013", 23-27 October 2013, Siauliai, Lithuania.
- ❖ Du Plessis, A. (2013). A heuristic for ICT implementation in schools and FET colleges. Presentation at *4th Annual ICT in Higher Education*, Johannesburg, 18-19 March 2013.

- ***Presenting papers or presentations at discipline-based conferences: Published in proceedings***
  - Du Plessis, A. & Webb, P. (2012). A proposed ICT implementation heuristic for schools in disadvantaged contexts: An African perspective from South Africa. *Science & Technology Education for Development, Citizenship and Social Justice, IOSTE 15 Symposium*, La Medina - Yasmine Hammamet, Tunisia, October 28 to 03 November 3, 2012.
  - Du Plessis, A. & Webb, P. (2012). A heuristic for higher level student cognitive thinking and questioning through collaborative student designed wiki-based Cyberhunts Seventh International Conference on Science, Mathematics and Technology Education, Muscat, Oman, November 4 to 7, 2012.
  - Du Plessis, A. & Webb, P. (2010). The $CRAR^3FS^2$ framework for developing teachers' ICT skills for Science Education through Cyberhunts. *Socio-cultural and Human Values in Science and Technology Education, IOSTE 14 Symposium*, Bled, Slovenia. 361-371.

Adding value to Teaching and Learning, Research and Service activities

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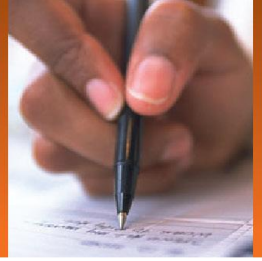
- **Attending and presenting papers or presentations at discipline-based conferences: Not in proceedings**
  - Du Plessis, A. (2013). A heuristic for ICT implementation in schools and FET colleges. Presentation at 4th Annual ICT in Higher Education, Johannesburg, 18-19 March 2013.
  - Du Plessis, A. (2012). Can we continue with ICT devices the way we are currently?- The road ahead & A New Internet Teaching Strategy. Presentation at Inspiring Teachers Conference, Nelson Mandela Metropolitan University, Port Elizabeth, South Africa, 03 August 2012.
  - Du Plessis, A. (2011). Internet learning through learners as designers of Extended Cyberhunts: A South African Developed Strategy. Presentation at the Africa Higher-Ed ICT Conference, Johannesburg, 30-31 March 2011.
  - Du Plessis, A. (2010). Action Research might hold the key to improving teachers' mathematics practices. Presentation at AMESA 2010 Mathematics Conference in Port Elizabeth.
  - Du Plessis, A. (2009). The $CRAR^3FS^2$ framework for developing teachers' ICT skills for e-Education. Presentation and paper at Walter Sisulu University E-Learning Conference on 3-4 November 2009.

Trans-disciplinary exchanges and co-operation within NMMU

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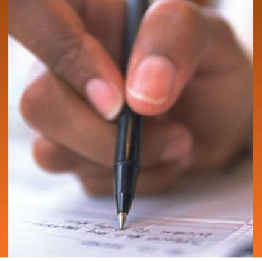
❑ Cooperate with ICT services

- ➢ Eldrige van der Westhuizen
- ➢ Stephen Viljoen
- ➢ Grant Abbot
- ➢ Creswell du Preez
- ➢ Connie van Zyl

So what have we tried so long?

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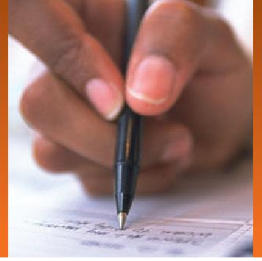
- **Enabling and motivating the early majority at school**
- **To focus more on particular groups of learners in schools**
  - Training and developing them during school & after school: WHY?
    - These learners have to become our co-drivers and facilitators to …
      - ✓ Teach other learners
        - Lead to 'pressure' teachers to use ICT
      - ✓ Teach their teachers

Benefits of Engagement

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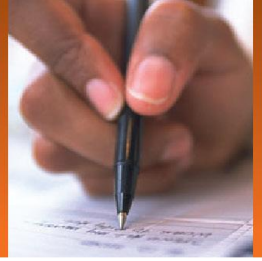
- Personal Learning – Those who organize, plan and implement it
- Communities enabled
- Learners feel important
- Teachers become ICT enabled
- Changes in using ICT at classroom & school level
- NMMU brand is spread – an institution that cares
- Faculty of Education is promoted
- Possible MEd & PhD students

What are some of the problems that we face at school level?

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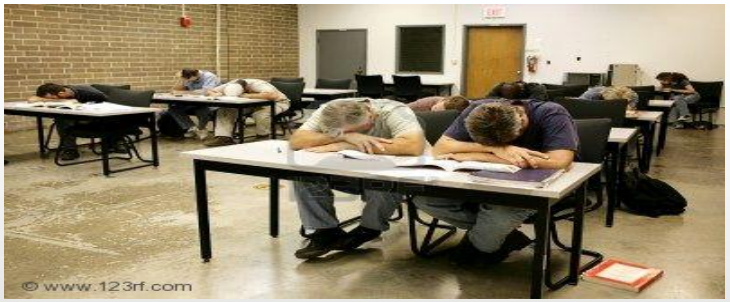
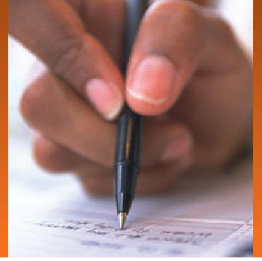
- **Un-learning of our traditional ways of doing!!!**
- **We stick to the 'old way' of doing OR the traditional way!!**


- Desks in straight lines …

- **Which often results in …**
  - Losing students



The problems our teachers experience (And ENGAGEMENT in general)

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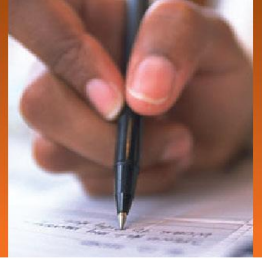
First order barriers

- Limited, but evolving vision, focus and goals
- Infrastructure is lacking & computers are getting 'old'
- Department of Education does not provide support
- Ongoing support is vital
- Existing participation and sharing of experiences during the implementation process has to be improved
- Computer skills of colleagues have to be improved, more training is required
- Time issues have to be addressed
- Rewards, incentives and training prospects

Second order barriers

- Some teachers are still lacking computer skills
- Confidence related to learning computer skills

What should be done?

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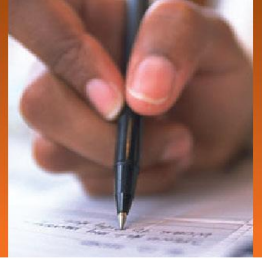
Address the Greatest Barrier: **OURSELVES!! Our THOUGHTS & DOINGS**

We don't want to change or unlearn!!

"The secret t[illegible]ning new things is to be willing to unlea[illegible]ven if your behaviors previously bro[illegible]uccess" [Marcia Conner]

"And this is very hard and uncomfortable for many"

Greatest lessons learnt about Engagement in Higher Education

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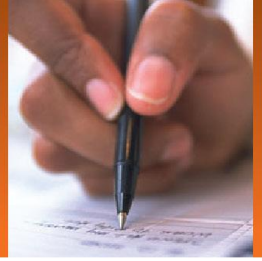
- Address First & Second Order Barriers
- It is NOT easy
- Takes a GREAT amount of TIME
- Perseverance
- Not everyone has the same passion, view, etc. on the value of engagement
- Do not expect that your engagement will be the ‘silver bullet’ or ‘cure’
- Don’t give up

Suggestions: How to assist / enable project/ engagement activities

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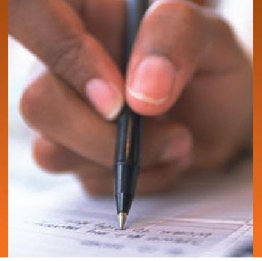
- Invest TIME-TIME-TIME and MORE time
- Use SKYPE
- Use Screen recording activities that can be viewed in own time
- Think differently about the *"How To"* do it

Project: Hyperlink

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- Busy to design NEW website

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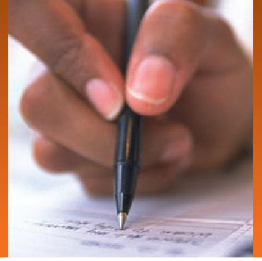

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- **Thank you: Any Questions?**