### Taking on the hi-tech challenge

Project aims to help pupils prepare for changing world



#### Maths, science pilot pays off for city girl



## Pupils tap into success

Id any time.

Id MMIDU at the university.

FIGURE OUT: The Tablet-assisted Afters

Werner Olivier said: "TAPS

inMMUs at the university, ferrice Olivier said "TAF"s sustainable programme of the property of



Publication: Rep. The Date: 03 Jun 2016 Page: 14

#### Maths, science help for pupils

Bursary boost for NMMU's 'missing middle'

Publication: Burger (Oos Kaap) Date: 14 Jun 2016 Page: 3

Port Elizabeth. – Om die Oos-Kaap se swak wiskunde-nit-slae te verbeter, is 150 van die beste wiskunde onderwysers in die provinsie pas opgelei om hul kollegas in die vak touwys te maak. Dié gr. 10, gr. 11- en gr. 12-onderwysers van minderbe-voorregte skole reg oor die provinsie is as die top wiskun-de-onderwysers in hul gebiede aangewys. Hul nuwe mandaat is om ander wiskunde-onder-

Wiskunde-onnies leer mekaar

#### Bid to boost maths results



#### Top teachers get specialised training Varsity mathematics unit and education department expand help to improve marks



ACHIEVERS: Alexander Road High's Brandon le Roux 14, and Pearson High's Kianna Peterson, 16, won this year's cellphone-based TouchTutorTM Maths year's cellphone-based TouchTutor Competition for Grade 9 and 11. Maths co

#### **App-based maths** contest launches

Weekend Post Reporter

THIS week marked the end of a landmark Mxit-based maths competition – run nationally, provincially and citywide since 2013 – and the launch of a brand new android-based maths

2013 — and the launch of a brand new android-based maths competition, which will kick off next year.

The TouchTutorTM Maths Competition, sponsored by the Capitec Foundation, was developed to "popularise" maths among tech-savyy pupils. — and its developers, Nelson Mandela Metropolitan University's Govan Mbeki Mathematics Development Unit, are determined to keep it fresh by shifting to the latest cellphone technology.

Next year's competition will run on a new app, available free from the Amp Store. The app drives access to assigned texts for

Next year's competition will run on a new app, available free from the App Store. The app gives access to assigned tests for competition purposes, along with other downloadable tests. The announcement of the new competition format took place on Wednesday at the prizegiving for this year's Grade 9 and 11 competition winners. Ironically, the top spots in each went to pupils in the grade below – Alexander Road High Grade 8 pupil Brandon le Roux, 14, and Pearson High Grade 10 pupil Klanna Peterson, 16. Neither had studied the Grade 9 or 11 maths syllabus before attempting the curriculum-aligned maths tests. "Just get maths," said Le Roux, who is interested in pursuing an accounting career. "Maths comes easily to me." Peterson, 16, who is planning to study actuarial sciences, said her win was a surprise, "not knowing Grade 11 work". "Just looked at the different equations and figured it out." The new app will have language support in six indigenous

The new app will have language support in six indigenous languages, and will be available from Grades 8 to 12



Matriekleerders aan die Hoërskool Cillié (van links, kloksgewys) Valerie van Vuuren, Rudean Lackay, Aladdin Siebritz (hoofseun) en Kate-Lynn Jacobs neem deel aan die tegnologie-gesteunde wiskundeprojek van

### Wiskundeprojek wil dié matrieks help

Die Telkom-stigting het R3 miljoen in 'n driejaar tegnologie-gekoppelde wiskundeprojek gestort om die uitslae van leerders in tien hoërskole in Nelson Mandelabaai te verbeter.

Die projek is in vennootskap met die Nelson Mandela-Universiteit se Govan Mbeki Wiskunde-ontwikkelingseenheid.

Dit is reeds in swang by 10 hoërskole, wat Cillié, Douglas Mbopa, Gelvandale, Khwezi Lomso, Ndyebo, Ndzondelelo, St. Thomas en Woolhope, in Port Elizabeth, en die Uitenhage-skole, Solomon Mahlangu en Uitenhage High, insluit.

Leerlinge sê die innoverende wiskundeprogram maak reeds 'n verskil.

"Die meeste van die hoofstukke waarmee ek gesukkel het, het meer verstaanbaar geword," sê Madodandile Soyiki, 'n matriekleerling aan Woolhope High School. Ook Muziwandile Thubane

van Solomon Mahlangu High School meen dit het hom geïnspireer om sy skoolwerk te

Nathi Kunene, senior bestuurder van maatskaplike beleggings by die Telkom-stigting, sê onderwys is die stigting se primêre fokus.

"As jy kyk na hoe jy die samelewing kan verander, is onderwys die belangrikste hefboom om sosio-ekonomiese ontwikkeling te dryf." - Roslyn Baatiles

Publication: The New Age Date: 15 Sep 2016

### Telkom Foundation invests in pupils

Three-year technology-based maths project aims to improve results of pupils and make maths, science exciting

R3m into a three-year technology-linked maths project to boost the results of pupils in 10 under-resourced high schools in Nelson Mandela Bay.

The projectis run in partnership with lelson Mandela Metropolitan Univer-ity's Govan Mbeld mathematics devel-pment unit.

opment unit.

It is already in full swing at the 10 high schools which include Cillie, Douglas Mhopa, Gelvandale, Khwest Lomso, Ndyebo, Ndzondeleko, St Thomas and Woodhope in Port Elizabeth and Solo-

Nlybo, Ndzonlekls, St Thoma and Woolhape in Port Elizabeh and Sobmon Makhangu and Ulterhage high schools in Ulterhage high schools in Ulterhage. Pupils say the innovative maths programme is alwesty making a difference. "Most of the chapters which I used to struggle ching have become more understandable." Woolhape Grade 12 pupil Machondulle Stydis sald. Solomon Maltingui Grade 11 pupil Marchandile Stydis sald. Solomon Maltingui Grade II tupip dure a lot in studying and it inspired me to do any schoolwark because I have everything I need! At the heart of the project is the units pioneering technologies.

ogy-linked teaching and learning model which for pupils at the project schools has led to Saturday incubator schools, a Tablet-assisted After-school Peer Sup-port programme and a school-based resource centre with desktop comput-

rescuree centre with desistop competers.

The Irregarated Tood/TutorTM Sup-port Programme (ITSP) is the brain-child of the units head prof Werner (Dirise, who has adopted a high-tech approach that is "in harmony with the challenging educational environmentin the misjerity of South African schools and aims to get teachers and pupils excited about maths and science," "The aim is to assist teachers to deliver the mathematics curriculum effectively and to matture pugils with potential for access and success at higher education level," Olivier said. Through the course of this year, the unit has successfully implemented simi-far ITSP programmes in me et dan 30

ar ITSP programmes in more than 50 schools in several districts of the East-

ern Cape.

Nathi Kunene, Telkom Foundation's senior manager: CSI, said the foundation's primary focus is education.

"When you look at how you can



HELPING HANDS: SMMDU head Prof Werner Olivier, leikom roundation Heradien, subject advisor for mathematics (FET level) in Port Elizabeth. S: GMMDU h

The said the foundations involvement in the Nelson Mandela Bay maths pro-ject was a way of enabling more pupils to be equipped with critical skills and

resulte to access ICT careers.
socio
sidi.
an ICT industry skills pod as well as brement contribute to addressing critical skills.

socio-economic challenges that may be affecting the performance of pupils (as in child-headed households) and will then identify possible long-and short-term interventions and partnerships. provinces@theneousge.co.zu

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LEARNING ALL THE TIME: Teachers from schools in Komani, King William's Town and Port Alfred attended the launch of a technology-linked maths and science support programme, running at eight schools in the Border region

# Maths, science help for schools

#### Teachers, trust link to bring technology to classrooms

MATHEMATICS and science pupils at eight schools in Komani, King William's Town and Port Alfred are benefiting from a leading-edge technology-linked support pro gramme, run by Nelson Mandela Metropolitan University's Govan Mbeki mathematics development unit, in partnership with BK Administrators, a charitable trust in

Administrators, a charitable trust in the Border region.

Training is also being provided to teachers at the schools – which include Komani's Get Ahead College, Queen's College, Girls' High School and Hangklip High School; King William's Towrl's Dale College, Kingsridge High School and De Vos Matlan High School; and Port Alfred High School.

GMMDU's innovative teaching and learning programme –

and learning programme – packaged as TouchTutorTM software – is available on tablets for selected pupils (for use as "personal tutors" outside school hours), desktop computers for general use by pupils, and laptops for teachers (for use as a teaching

for teachers (for use as a teaching resource within the classroom). TouchTutorTM includes recorded video lessons and animated PowerPoint presentations, which are fully aligned with the CAPS curriculum for Grades 10 to 12, along with a wealth of teaching and learning material designed to boost understanding among pupits, while also boosting the core skills and knowledge of their teachers. The package includes the dynamic mathematics software package GeoGebra, past matric papers (with

GeoGebra, past matric papers (with memoranda), self-assessment and feedback, a glossary of terms (in six indigenous South African languages), calculator support and other high-tech resources.
The techno-blended teaching and

learning model was pioneered by GMMDU head Prof Werner Olivier, specifically for use in under-resourced schools – in some case: resourced schools – in some cases, the tablets have been used in schools where there are no science and maths teachers. However, as is the case in this programme, the model is also being rolled out in former Model C schools as an additional teaching and learner

"The integrated TouchTutorTM mathematics and science support programme was developed over a five-year period, and presents a modern and flexible offline scaffolding [support] platform for mathematics and physical science in secondary schools," said Olivier. "Currently, this programme is also active in more than 50 under-resourced schools in the Eastern Cape province where the aim is to nurture learners to improve their chances of getting into universities." "The integrated TouchTutorTM

into universities."

About 150 tablets were handed to principals and teachers at the recent formal launch of the programme at De Vos Malan High School, where the respective memoranda of understanding were

memoranda of understanding were also signed. The eight schools received their desktop computers and laptops prior to the launch. "The eight schools have committed to a process of identifying needs and strategies to use the resources to support mathematics and science teaching and learning, with the aim of boosting performance in these subjects," said GMMDU project coordinator Dr Philip Collett. At the launch, BKA board chairman Hugh Wormald encouraged schools to "utilise the

encouraged schools to "utilise the opportunity fully" and stressed the significance of individual commitment and action by teachers and learners.

"BKA is committed to supporting mprovement in schools, particularly in the disciplines of mathematics and science, which are key drivers of economic and social development," Wormald said.





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