

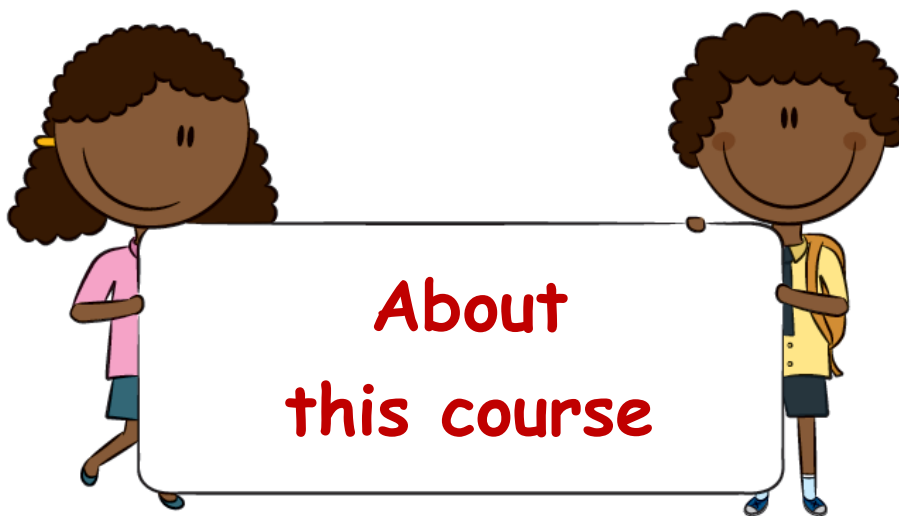
Foreword from Hon Minister Derek Hanekom, Minister of Science and Technology

The Technology for Rural Education Development (TECH4RED) project in the Cofimvaba schools district is a joint initiative between the Department of Science and Technology (DST), the Department of Basic Education (DBE), the Eastern Cape Department of Education (ECDoE) and the Department of Rural Development and Land Reform (DRDLR) and is aimed at contributing to the improvement of rural education through technology-led innovation. TECH4RED is rooted in the recognition that larger scale improvements to the education system are not limited to the domain of education departments alone, but require the combined efforts of public and private partners, together with civil society at national, provincial, and at District and Circuit level.

For the DST, the primary purpose of TECH4RED is to create an opportunity to examine whether and how the introduction of new technologies, as well as technologies that have been tested in other contexts, will contribute to improvements to the quality of teaching and learning in a rural context. The quality of teaching and learning is influenced by a range of environmental factors, and thus TECH4RED is envisaged to provide for a range of technology interventions including, amongst others, in ICTs, water and sanitation, health, nutrition and energy.

The ICT4RED aspect of TECH4RED aims to investigate how modern ICTs, such as tablets and mobile phones, can support teaching and learning in schools and prepare our children for the future. You, the educators, are a critical component of this strategy. We need to prepare our children for a world where technology and the world change so rapidly that their future jobs don't yet exist. You will be introduced to new technologies, challenged and empowered to become the best of the best. Good luck and enjoy your journey of discovery!





Welcome to an exciting journey of personal and professional growth. We are so excited to learn with you and from you! It is natural to feel a bit nervous at the start but if you work together and support each other you will enjoy the voyage together. We would like to encourage you to use all the opportunities that will be coming your way. This *ICT4RED Teacher Professional Development Course* will be presented over the course of 10 modules during which time you will be developing a toolbox of teaching, technology and 21st century skills. In each module you will be given the opportunity to learn more about an innovative teaching strategy, relevant assessment tools as well as some technology skills to assist you in applying what you have learned in your classroom.

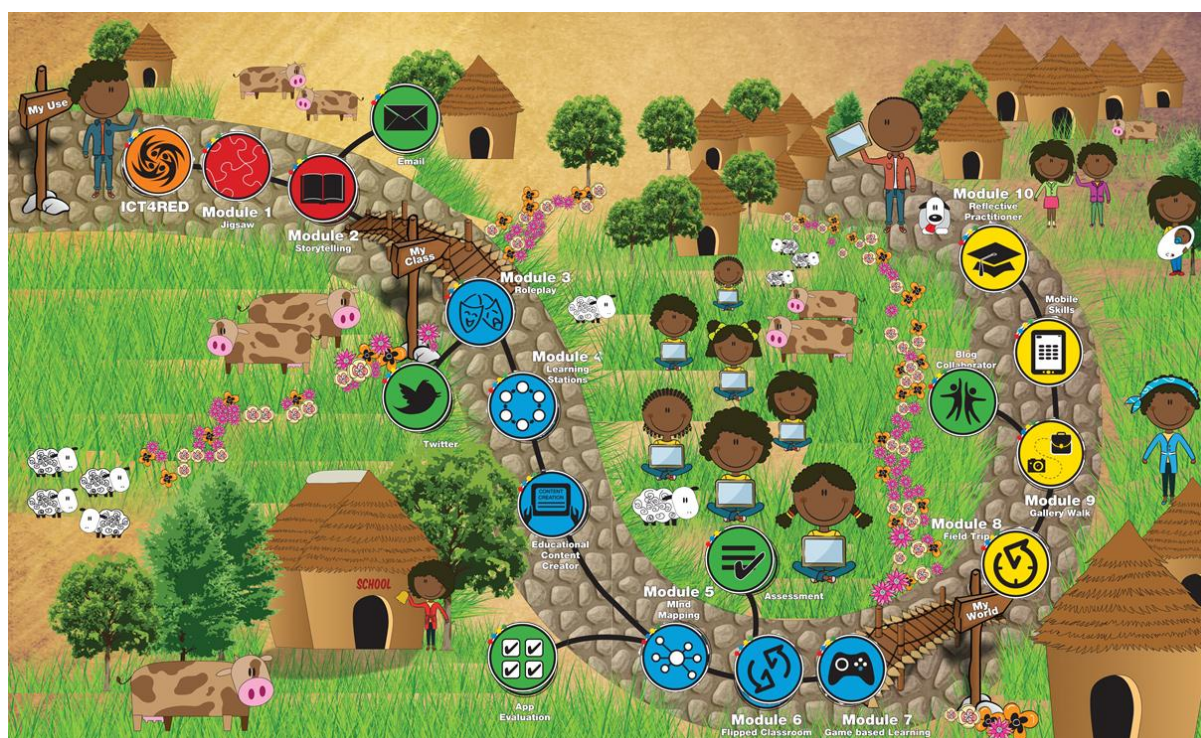
As you develop new skills and can show how you use them in your classroom, you will be earning badges that are an acknowledgement of your determination to turn your classroom into a student centred 21st Century learning space! So let's get started...





Learning Path

The journey through the ten modules forms a learning path. This path starts from using and caring for the device as a personal technology in Module 1 and 2, to a teaching device in Module 3 to 7, to a device for further learning and collaboration in Modules 8 to 10. Each of the modules have one or two badges attached to it. The badges represent a challenge to apply a specific teaching strategy in your class; to use, create and licence some educational content and to demonstrate your technology skills. These 13 badges, as well as the challenges they represent, have to be completed in order for you to graduate. In addition there are 5 challenge badges that you can try.

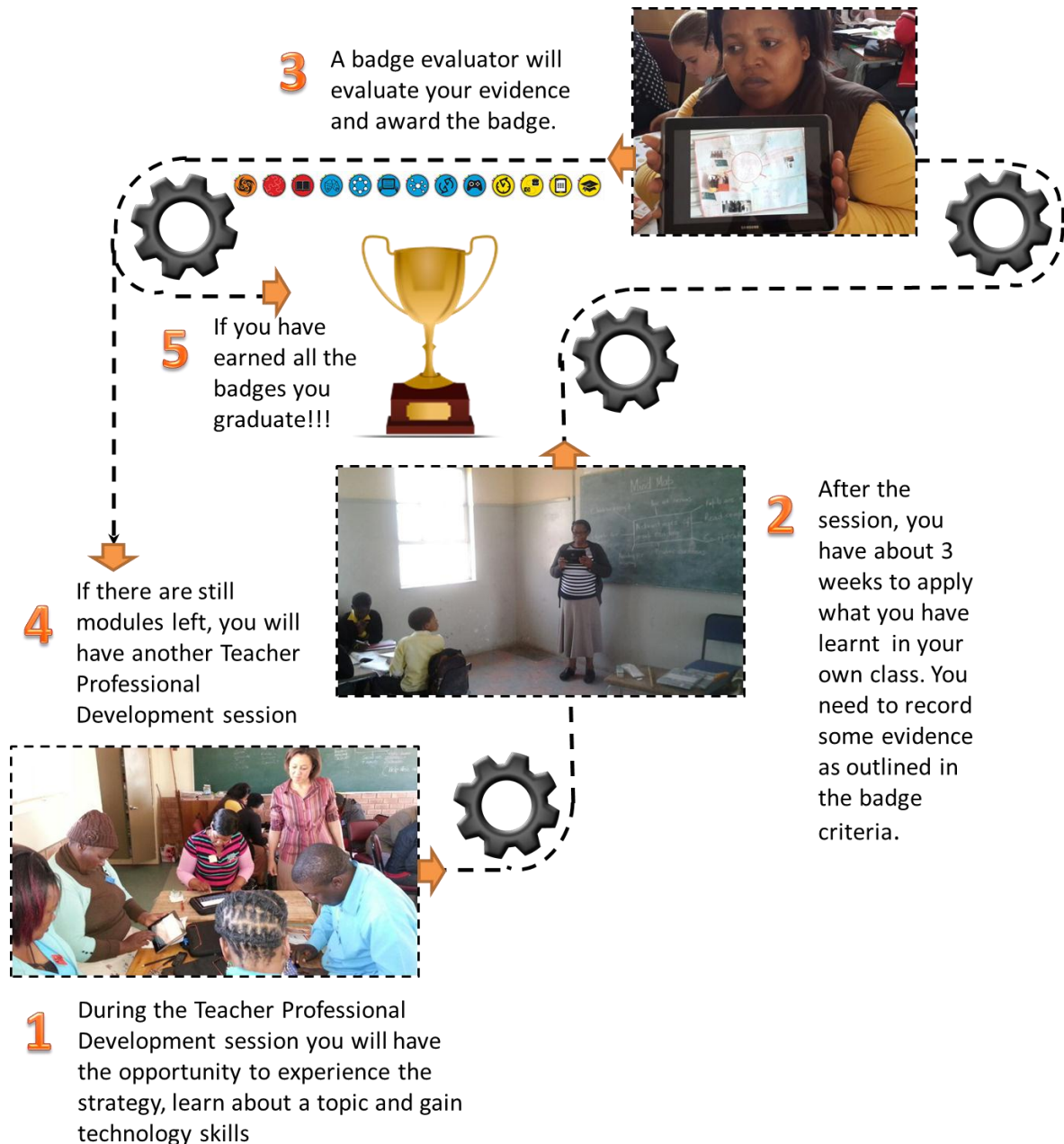


Compulsory Badges



Optional Badges













Each *ICT4RED Teacher Professional Development* session will demonstrate a teaching strategy, cover a specific topic and guide you to master some technology skills. The sessions are structured so that you are able to actively participate in the learning process and have plenty of opportunity to address all your concerns. After the session you have about 2-3 weeks where you become a co-creator in your learning as you apply the new strategy in your class. You can now show off your new skills by integrating your subject knowledge and technology into a new lesson! Each teaching strategy is linked to a badge and you can see what evidence you will have to present to a badge facilitator. They will evaluate your evidence and award you a badge. This process will repeat until you have completed all the modules.


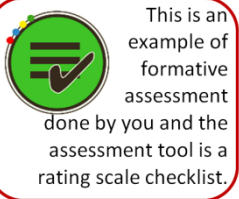


Outline

Each Module has a number of sections and elements that are outlined below:

 Outcomes	Tells you what the outcomes of the Module is and gives the names of the Applications that we will be using.
 Introduction	Outlines briefly what the module is about.
 Activity	<p>These are things that you will do, either using a specific Application or using your device. Each of the activities are timed and the time allocation indicated by a small stopwatch. The stopwatch below shows that the activity has a time limit of 25 minutes.</p>  25 min
 Notes	This is space that you can use to write your own notes.
 Homework	Each Module has a section of Homework. This will outline what you need to do in preparation of applying the strategy in your class successfully. The Homework section also gives you the Badge that is compulsory and possible optional or challenge badges.
 Outcomes Checklist	This checklist guides you to evaluate if you gained the required skills.
 Doing it differently	This course has been designed for classrooms where all learners and teachers have access to their own mobile devices. In contexts where this is not possible, you will need to reflect on how you will use your particular technology provisions within the given teaching strategy. In this section, examples of how the teaching strategy was applied integrating technology are given. In addition, ideas on how you can apply the featured teaching strategy with 1, 5 or more and when each student has a device are outlined.



	<p>When you see this element, it indicates that there is a How-to-tutorial available that will show you step by step how to use the technology application.</p>
	<p>This element indicates the use of a relevant assessment tool.</p>



The course and its supporting material can be found in the **ICT4RED** folder on your device. Apart from the **How-to Tutorials** folder, where you can find step by step mobile skill instructions, you will find the teacher manuals, accompanying presentations and module resource folder. The **Module resources** folder contains compulsory reading as well as additional articles that will help you to understand each teaching strategy, the relevant content and mobile skills.



Online resources

You can access more information about the course and most of the offline material on our course blog at www.ict4red.blogspot.com. The blog will also contain up to date news flashes and photo galleries of inspiring moments from your classrooms. You will in time become co-authors of the blog by sharing your experiences with your colleagues.



For instant updates and information sharing, follow our @ict4red twitter stream using the hashtag #ict4red.





Acknowledgements

The **ICT4RED Teacher Professional Development Course** is an instance of the Mobile Learning Curriculum and is underpinned by the Mobile Learning Curriculum Framework¹. The Mobile Learning Curriculum Framework was a collaboration of many highly talented individuals in the Mobile Learning domain, giving of their time and expertise without reservation. **THANK YOU.**

The ICT4RED Teacher Professional Development Course was conceptualised, developed and implemented in response to the Cofimvaba Schools District Technology Project. This project is a joint initiative between the Department of Science and Technology (DST), the Department of Basic Education (DBE) and the Eastern Cape Department of Education and is aimed at contributing to the improvement of rural education through technology-led innovation. The Department of Rural Development and Land Reform (DRDLR) also joined as a key partner in the initiative in 2013.

For the DST, the primary purpose of the Project is to create an opportunity to examine whether and how the introduction of new technologies, as well as technologies that have been tested in other contexts, will contribute to improvements to the quality of teaching and learning in a rural context. Set to be piloted in the Nciba Schools Circuit during 2013 - 2015, this Project will serve as a 'testing ground' of different ways in which a range of technology intensive interventions could enhance the teaching and learning of maths, science and technology.



In addition, many individuals have worked tirelessly to create and produce this course:

Dr. Adele Botha (CSIR Meraka): Course Creator, Instructional and Interaction Design

Maggie Verster: Principal Facilitator and Instructional Design

Sandra Van Niekerk: Instructional Layout and Editing

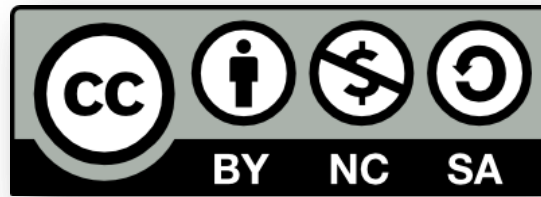
Merryl Ford (CSIR Meraka): Manager ICT4E / mLearning

Antoinette Propy: Afrofusion Advertising and Marketing (PTY) Ltd. Graphic design

SchoolNet SA: Facilitation

¹ Botha, A., Batchelor, J., Traxler, J., de Waard, I., & Herselman, M. (2012). *Towards a Mobile Learning Curriculum*. Paper presented at the IST-Africa 2012, Dar es Salaam, Tanzania.





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Botha, A & Verster, M (2014), ICT4RED Teacher Professional Development Course. TECH4RED, CSIR Meraka Institute, Pretoria, South Africa.

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The original version can be downloaded from:
<http://www.ict4red.blogspot.com/p/about.html>



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