



## CASE STUDY

# ZIMSEC successfully implements online exam authoring using GradeMaker Pro



The Zimbabwe Schools Examinations Council Board (Zimsec) wanted to strengthen the security and increase the quality and efficiency of its examination production processes. The Zimsec Board and Senior Management therefore decided to use an electronic item banking system to deliver better quality examination content, reduce the risk of leakages and ensure tighter operational control over exam authoring. They are now in their third year of using the GradeMaker Pro software and are using it successfully to write 37 subjects.

## A system to support efficiency and security

In common with many awarding bodies, the authoring process at Zimsec involved compiling papers from banks of items – but technology gaps forced a reliance on hard copies and made it necessary to compile papers early in the process, so security was hard to maintain. Manual working also made quality control difficult.

By using GradeMaker Pro, Zimsec looked to:

- transform its question paper development processes
- lock down security through secure digital storage and a material reduction in the use of paper copies
- improve item quality assurance by using rigorous item review processes
- raise the quality of paper construction by using an assured item bank linked to rich metadata fields
- create papers which are closer to 'print ready' and simplified typesetting.

The system also needed to be intuitive to use, and support print-based delivery.

Mr. Kariyo, who was the Acting Assistant Director, Test Development, Research and Evaluation at Zimsec when this case study was conducted had this to say about the system:

“ It has enhanced the security of both our items and our question papers. It has also greatly reduced the amount of printing to be done during question paper development, thereby cutting costs substantially. ”



### Security improvements

It was very important to Zimsec that the software was secure with robust password enforcement. Levels of access are now clearly defined for users, depending on their role and responsibilities and this has improved security across the board. Finally approved papers can be locked for access and retain confidential status in the system.

### New workflows also helped reduce risk of leakage

Through using GradeMaker Pro, Zimsec changed its process for item and test creation, by using digital item banking and so pushing test construction later. The effect of this was to reduce the number of people who had access to final tests, thereby reducing the risk of leakage.

### Ease of review and the power to drive improvements based on insight

Zimsec, by giving its authors easy viewing of historical syllabus coverage, has found it easier to locate appropriate syllabus areas from which to commission item writers and this has made it simpler for authors to edit past

items and mark schemes to create new ones. They have also found it very time-saving to be able to flag items as ready for review and direct them to the reviewers' work list or for final approval without having to print copies and pass them on.

Authors also have access to item writing guidelines and existing (exemplar) items to improve their item writing quality. GradeMaker Pro gives Zimsec the ability to hold all items, syllabuses and mark schemes and so helps support post-exam item review and syllabus change. It also delivers statistical information relating to items.

“ The software is very user friendly. ”

### Writing templates that were easy to use

Zimsec stipulated that it was important for them to have a system that allows them to generate items with text formatting, bullets and numbering, tables, pictures, diagrams or create an image brief for the artists; as well as assign marks to items and input answers or mark scheme details. The team found the software user friendly.


## A skilled team

“ In terms of skills development, Mr Kariyo said, the training was helpful for it enabled us to acquaint ourselves with the different functionalities of the system. The training was further enhanced by several tele-conferences. This made the training and support services quite effective. ”

## Phased roll-out

Zimsec's approach to adoption was to start with 5 subjects, expand to 21 finally get to a point where all subject component papers will be developed electronically.

This has been a successful model. Subject Managers now have the capacity to train their colleagues and item writers on how to author items, develop them and build question papers in the GradeMaker. Gradually, Zimsec is getting a sense of independence on working with the system.

Candidate Name	Centre Number	Candidate Number								
 <b>ZIMBABWE SCHOOL EXAMINATIONS COUNCIL</b> General Certificate of Education Ordinary Level <b>COMBINED SCIENCE</b> <span style="float: right;"><b>4003/3</b></span> PAPER 3 Practical Test <b>SPECIMEN PAPER</b> <span style="float: right;">1 hour 30 minutes</span> <small>Candidates answer on the question paper Additional materials: As listed in instructions to Supervisors Calculator (optional) 30 cm ruler</small>										
<b>TIME</b> 1 hour 30 minutes										
<b>INSTRUCTIONS TO CANDIDATES</b> Write your name, centre number and candidate number in the spaces at the top of this page. Answer both questions. Write your answers in the spaces provided on the question paper. Use a sharp pencil for your drawings. Coloured pencils or crayons should not be used. You should show the essential steps in any calculation and record all experimental results in the spaces provided in the question paper.										
<b>INFORMATION FOR CANDIDATES</b> The number of marks is given in brackets [ ] at the end of each question or part question.										
<table border="1"><thead><tr><th colspan="2">FOR EXAMINER'S USE</th></tr></thead><tbody><tr><td style="text-align: center;">1</td><td></td></tr><tr><td style="text-align: center;">2</td><td></td></tr><tr><td style="text-align: center;"><b>TOTAL</b></td><td></td></tr></tbody></table>			FOR EXAMINER'S USE		1		2		<b>TOTAL</b>	
FOR EXAMINER'S USE										
1										
2										
<b>TOTAL</b>										
<b>This question paper consists of 5 printed pages and 3 blank pages.</b>										
<small>Copyright: Zimbabwe School Examinations Council, Specimen paper.</small>										
<small>©ZIMSEC Specimen paper</small> <span style="float: right;"><b>[Turn over]</b></span>										

## KEY FACTS

Number of subjects written in GradeMaker Pro to date:

**37**

Number of papers written to date:

**82**

Number of years using GradeMaker Pro

**3**



## About Zimsec

The Zimbabwe Schools Examinations Council (Zimsec) is an internationally accredited examinations board responsible for high stakes school assessments. Zimsec is at the heart of Zimbabwe's education sector, and is widely regarded as a centre of excellence within Africa, offering qualifications deemed by NARIC as equivalent to GCSE in the UK, Australia, New Zealand and the USA.

Under the guidance of the current senior leadership team, Zimsec has embarked on a modernisation strategy, successfully implementing technology systems to enhance efficiency and future-proof their business processes.

## About GradeMaker

GradeMaker Ltd. is part of the Stephen Austin group, which includes Stephen Austin Ltd, the leading supplier of secure examination production and distribution services.

With over sixty years' experience in the specialist field of assessment, Stephen Austin works with Ministries of Education, Examination Boards, Assessment Agencies and Professional Institutes in twenty-five countries across the globe.

To discuss how GradeMaker Pro can help you make your exam authoring better, then contact us for a free, no obligation, demo:

**[info@grademaker.com](mailto:info@grademaker.com)**

**+44 (0) 1242 323723**