The Practicability of Microsoft OneNote as an Introductory Package for E-Portfolios in High-Stakes National Assessment

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1 Abstract

The national moderation of school based assessment conducted by the Independent Examinations Board in the National Senior Certificate in South Africa is an offsite paper-based process.Using the findings from a pilot project, this paper explores the practicability of using *Microsoft OneNote* for the introduction of e-portfolios in high-stakes assessment.

A small-scale pilot project was conducted in one province in Computer Applications Technology, a Grade 12 subject included in the National Senior Certificate, using *Microsoft OneNote* as the management programme for the school based assessment. The paper reports on the findings of this project in terms of teacher and moderator experiences, and provides suggestions on how e-portfolios may be incrementally introduced in high-stakes national assessments, enabling a more efficient moderation and assessment process. Comment is also provided as to the possibility of extending this process to all subjects at a national level.

Key Words

Microsoft OneNote, e-portfolios, school based assessment, high-stakes, practicability, risk-management, moderation, efficiency

2 Introduction and Background

In South Africa, the Grade 12 National Senior Certificate (NSC) requires learners to sit for seven subjects. The NSC serves as both the exit point of secondary school and also access to tertiary education depending on the grades received. Seventy five percent of the grade for the majority of the subjects is determined by the performance of learners in the externally set examinations. In some subjects that have an oral (e.g. languages) or practical component (e.g. Computer Applications Technology), the external examination constitutes 50% with an additional 25% allocated to the oral or practical assessment. The remaining 25 % of the grade is assigned to school based assessment (SBA) for all subjects, with the exception of the subject - Life Orientation. In Life Orientation, the subject is assessed completely through SBA.

The SBA is moderated by the assessment bodies and by Umalusi. Umalusi is the independent statutory body that quality assures the assessment instruments and processes of all examining bodies assessing the NSC in South Africa (SA). Umalusi has the task of maintaining standards and has put in place measures to ensure that SBA is valid, reliable and fair (see Umalusi, 2010).

The Independent Examinations Board (IEB) is one of the two assessment bodies that currently assess the NSC in SA. The IEB moderates the SBA for its schools by looking at Teacher Files (TFs) and a sample of Learner Files (LFs)[1].All TFs are moderated either regionally, nationally or both. In the case of Learner LFs, the IEB notifies schools early in the year as to which subjects will need to submit LFs for regional and/or national moderation. Learner Files are called to regional and/or national moderation in cases of non-compliance in the previous year, or any untoward instance during the year (see IEB, 2011).

The primary intention of the regional moderation process conducted by the Regional Moderator (RM) is to support teachers in developing consistent standards within, and across, schools. The work of the RM is also intended to reduce the load, both administrative and professional, at the end of the year when the National Moderation Committee meets during marking.

2.1 Logistics of the Regional Moderation Model

The IEB sends waybills and tracking numbers to schools in the July delivery. These must be used for the couriering of files to the RMs. It is the school's responsibility to ensure that the RM returns the files to the school. Schools are therefore required to send a return waybill and tracking number to the RM with the files. Where possible, schools are requested to deliver and collect files from the regional moderators. There are various models that the RM may apply when conducting the moderation:

> Model 1: A moderator may ask a cluster of schools to send the files from their school to one central school in the cluster/region; the moderator will travel to that school and spend the day at the school, covering the moderation of all the schools' files during the day. The IEB will cover travel costs and accommodation costs for the RM subject to approval by the relevant assessment specialist.

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[1] Teacher Portfolios in South Africa are known as Teacher Files and Learner Portfolios as Learner Files.

Model 2 : A moderator may ask schools to courier files counter to counter or deliver their files to him/her at his/her school; the moderator will complete the moderation and then use a central school as a venue to give feedback to schools individually. The IEB will cover travel costs for the RM as necessary.

Model 3 : A moderator may ask a school to courier their files (counter to counter) to him/her at his/her school; the moderator will complete the moderation and return the files to the school with the reports etc. The IEB will cover the courier costs.

In 2011 the IEB extended the submission process of SBA to embrace e-submission in the subject of CAT. Reasons supporting this development included: saving on the large amounts of paper and time used in printing all SBA items; saving on courier costs; risk-management i.e. lessening the threat of losing hard copies; the ability to link or embed static documents; allowance for a quicker turnaround time from submission to moderation and feedback; and improving the overall efficiency of the assessment and moderation process.

This paper reviews the practicability of submission and moderation of SBA electronically and considers the benefits and challenges experienced by the teachers and moderators in a CAT community where e-submission was piloted. Microsoft OneNote was used as the electronic platform.

3 Submission Process

Three groups of four teachers each and their RMs were trained by a lead RM in the use of Microsoft OneNote. They were then asked to create a Notebook for their TF as well as each LF. All work was to be submitted electronically to the RM. Any work that was manually written e.g. learner theory tests, was scanned and included. The teachers and RMs were also taken through the various options of submission and were allowed to use the format they were most comfortable with. The submission options and discussions included:

- **E-mail:** this could cause problems as the files may be large.

- **CD/DVD:** Notebooks fit onto a CD/DVD and could be sent via courier – much cheaper than sending a whole box of printed SBA.

- **Moodle:** have Moodle set up and teachers could upload to the RM's Moodle.

- **Dropbox:** Files could be uploaded to Dropbox (free private Cloud server) and shared with the RM.

- **Skydrive:** Files could be uploaded to SkyDrive (free private Cloud server) and shared with the RM.

- **Microsoft OneNote Web App:** the web browser, where you can work with notebooks directly on the website where the notebook is stored. For teachers and RMs using Microsoft OneNote 2010 they could use OneNote Web App and sync the Notebook to SkyDrive.

4 Increasing Efficiency

The literature for over a decade now has been full of observations on how electronic submission can increase the efficiency of the submission and moderation portfolio process (see Barrett, 2000; Bowie, Taylor, Zimitat & Young, 2000; National Board for Professional Teaching Standards 2013). Increasing efficiency however has to be weighed against the costs of teacher training and teacher buy-in. Technology may make the administrative process for the assessment body more efficient but at the same time it must be manageable by the teachers.

As a pilot project and at the early stages of teacher training towards moving to e-portfolios a starting point would be to create an electronic facsimile of the hardcopy portfolios (TFs and LFs). Microsoft OneNote was used as the platform by the IEB because it served the purpose of practicability. As an electronic notebook that links files and that can store text, images, multimedia and documents (attachments, printed and scanned), teachers could use it to create their e-facsimile. The virtual file could then be retrieved by the RM for moderation. Furthermore, OneNote 2010 (see Microsoft OneNote, 2010) comes as part of the Microsoft Office Suite, so is not an additional cost to schools who already have bought the suite. And, OneNote's multi-user capability facilitates collaboration among members who are not always online. The automatic sync of OneNote notebooks to SkyDrive or to other devices are additional practical benefits of OneNote that support efficiency in the submission process.

The SBA for CAT requires the submission of two tasks, one theory and one practical; three tests – one theory one practical and the third either/or; and the preliminary examinations (trial exams). The Practical Assessment Task, a further compulsory assessment task, is also included in the TF for moderation. The dynamic feature of OneNote allows the selection of the file type inserted, and not only displays a file icon for it, but also shows a dynamic preview of the file right on your notes page. If the information in the file is moderated, the preview in Microsoft OneNote will dynamically reflect the moderation. Together all these features allow the moderator not only to find all the SBA documents collated in one package, but also to moderate them without printing a single page (see Figures 1 and 2).
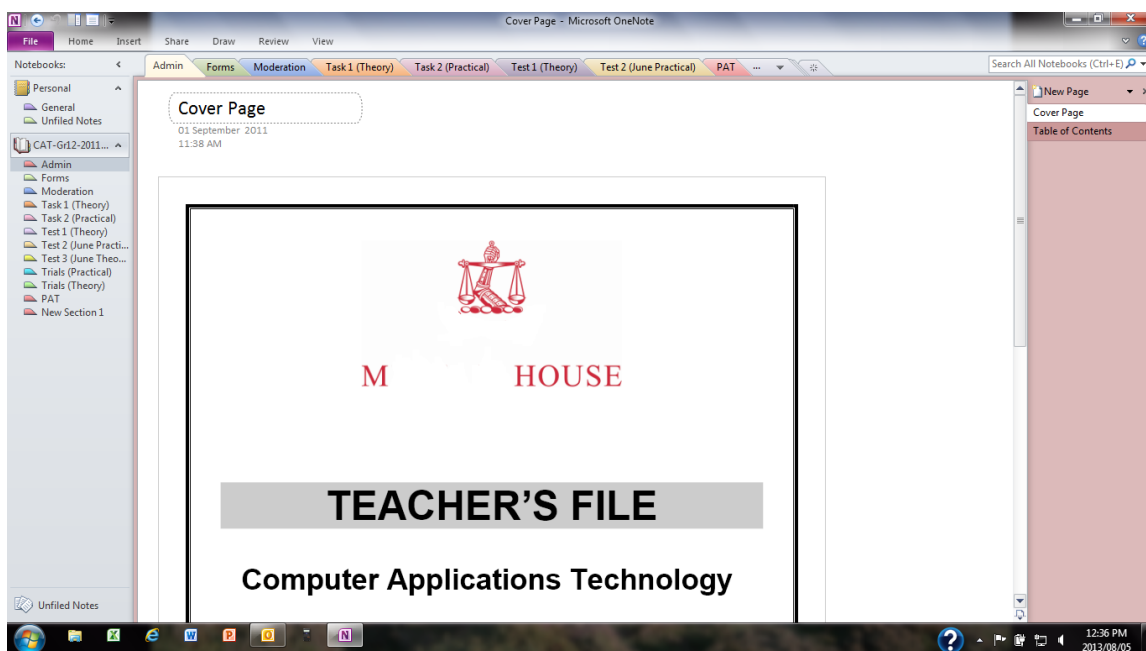

Figure 1: Screenshot of TF with SBA requirements on left of page and Section Tabs at the top of the page
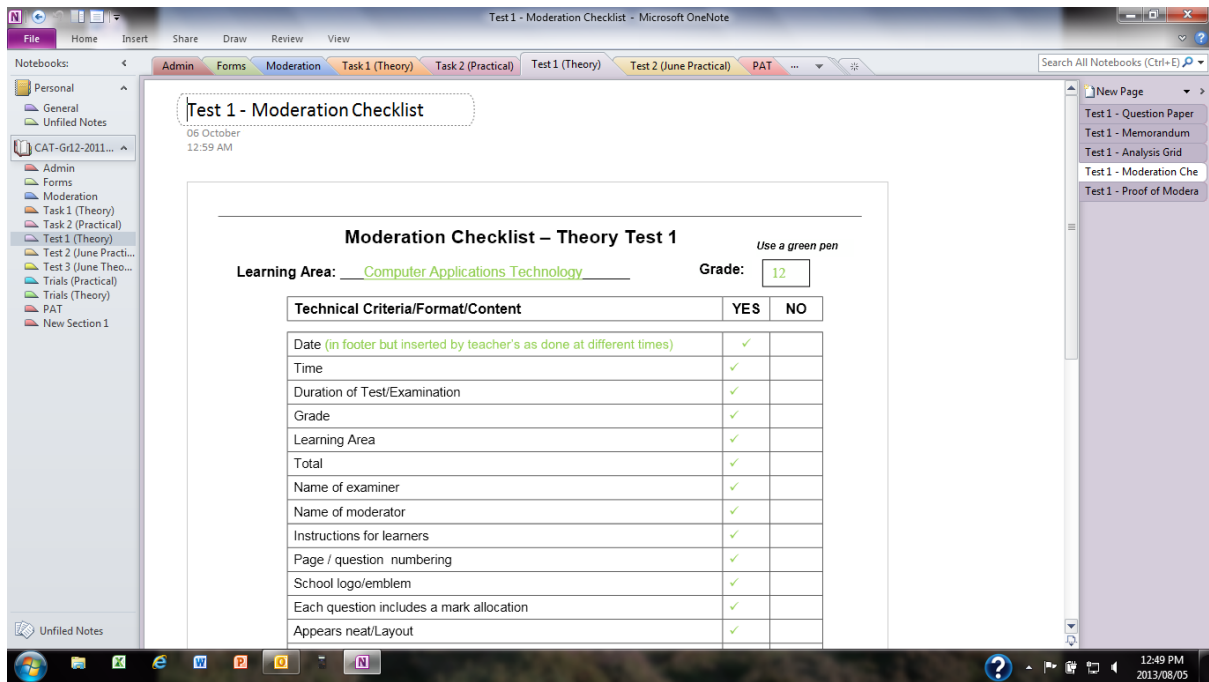
Figure 2: Screenshot of TF showing selected file and a preview of the file right on the notes page

5 Teacher's and RM's experience

The innovation implementation literature is consistent in reporting that the initial response of teachers faced with implementing a change is to ask questions about how it will impact them personally , followed about how to manage the task (Hall & Hord,2011). Both of these levels of concern, particularly in terms of time taken, were present in the feedback the teachers (T) and RMs in the pilot project gave.

T 1:   The fact that we set all our tasks, tests, and marking schemes on computer meant that all I had to do was file them in OneNote. Very easy after we were shown how to use it. Definitely the way forward.

T2 :   It does save a lot on printing and it also saves a lot of time for the teacher when it comes to collating portfolios as everything is electronic already and only the written theory of pupils has to be scanned in.

T3 :   I had a bit of an issue with regards to the size of the files and sending them via email. I did upload them to Dropbox and sent the link to my moderator. Otherwise, it all went very smoothly and I'd recommend the process for anybody, actually, as it is a lot less painful than printing everything out.

T4 :   I personally felt that submitting the student's portfolios electronically made life so much easier. It took me two hours to

prepare all five student's work for submission where it usually took me an entire afternoon (and evening) to print it all out, as the kids don't set margins properly and don't do screenshots of all their work in Microsoft Access.

T5 :   I just uploaded my student's docs onto Dropbox (which took about half an hour to upload) and it was done! I really do think that this is the way forward, as we preach daily about not wasting paper, etc.

T 6:   I prefer the electronic submission, though it is not necessarily less work. It was a huge download with which the moderator had trouble. Eventually I had to send it on a flash drive.

T7 :   I did not know how to use Microsoft OneNote – I had to learn. It was time consuming for me to learn. Hard copies are much quicker

RM 1 :   I found it very time consuming. On many occasions my comments and or ticks in green for moderation would not be accepted on the electronic documents, etc. when doing the moderating. It is important that teachers are methodical when it comes to keeping everything. Paging through teacher's and learner's portfolios that are submitted in hard copy was far easier and quicker to moderate.

RM 2 :   I received electronic submission from two schools; both schools used Microsoft OneNote to submit their work. I think that the electronic moderation was easy to do on my part. Also as after the moderation process I did not have to stress about getting the physical files back to the teachers. If files are not labelled correctly or are not collated correctly, there will be problems.

RM 3 :
Electronic submission, in my opinion, and in this digital age should be encouraged not only among CAT teachers, but given as an option to all teachers at both Regional and National Moderation level. A gentle approach needs to be taken so that teachers can get used to the system. It will save huge costs including printing, paper and courier; files will be neatly collated and easy to moderate. The information is at your fingertips and it has powerful search capabilities to find any information you are looking for. It is important that teachers are consistent and all use a package such as Microsoft OneNote that includes all documents in one folder or notebook, which will make moderation easier. Submission via DVD or upload to a Moodle, SkyDrive or Dropbox account should become easier as our bandwidth in South Africa improves.

6 Discussion and Next Steps

As discussed above, the IEB is looking into implementing e-portfolios in the NSC. Given the high-stakes nature of this assessment and the 25% weighting of the SBA/portfolio work the introduction needs to be manageable and practical, both for the moderators and the teachers.

The findings from this pilot project revealed that using OneNote to collate, store and submit the TFs and LFs containing the annual SBA is a practical and efficient platform because not only is it less expensive than advanced solutions involving high-priced and complex range of technologies but is also user friendly. The problems experienced were more about time taken for training, rather than OneNote's user facilities. Using OneNote to create electronic TFs and LFs proved to be manageable both in terms of teacher training and teacher use.

As the IEB moves towards the incremental implementation of electronic submission and moderation of SBA various technologies will need to be scrutinised in order to find the ones that will maximise the efficiency of the moderation process without compromising the integrity of the assessment. Areas that will further need attention are; security, and teacher and moderator training of technical attributes and technology choice.

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