

## WRITING PORTFOLIOS: WHAT? HOW? WHY?

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### ABSTRACT

This paper discusses the use of portfolios as an alternative form of writing assessment. It proposes that writing portfolios should consist of a formative portfolio and a normative portfolio maintained by students and teachers respectively. The learning benefits of portfolios are discussed, in particular the long term benefits of an emphasis on process rather than on product; the development of self-reflection which provides students with insights into their own learning process and thus encourages learner autonomy; the transferability of the skills learned to other areas of learning and disciplines as well as training students how to create portfolios which are increasingly required and expected in the real world by prospective employers. The paper concludes with a detailed look at how to create portfolios and introduces e-portfolios as a viable alternative to traditional portfolios. Examples of portfolios by students taking an academic writing course in Nanyang Technological University will be shown.

### Introduction

The assessment of writing is a particularly challenging area in writing programmes as Genre, subgenre, length, language, levels of usage, audience and purpose, assignments, curriculum, the writing process, collaboration, differences in tools and settings, variability of resources, all these considerations and more complicate the very nature of the task of assessing writing (Hamp-Lyons & Condon, 2000). This paper discusses writing portfolios in relation to three of these aspects in writing instruction and assessment. First, the need to adopt a more holistic approach in which both product and process of writing are taken into consideration; second, the importance of self-regulated learning where students learn meta-cognitive skills through reflection in the context of specific writing tasks; and third, the need for authenticity in assessment through active engagement of students in their own evaluation. Specifically, the paper demonstrates how the above considerations are taken into account in adopting portfolio-based assessment in an academic writing course for science students at the Nanyang Technological University (NTU).

### **What are Portfolios?**

Portfolios have been defined in many different ways depending on the purpose they serve in different educational environments. In the context of the writing course *The Art of Academic Writing* designed for science students at NTU, student portfolios are meant primarily to provide a method of assessment that takes into account students' efforts, progress and achievement over a 13-week semester. We chose to use portfolios as they chronicle the growth of students' skills in the writing process. In education, the emphasis is often on the products students create or the outcome they achieve without sufficient attention given to the processes required in creating those products or outcomes. However, portfolios can combine process and product teaching approaches, and they can consolidate teaching and assessment practices (Johns, 1993). With its potential for focusing on the process of learning, the portfolio approach gives an insight into processes involved in self-diagnosis and self-improvement as well as the meta-cognitive processes of thinking, through the use of self-reflection, peer evaluation and tutor feedback.

Two types of portfolios are required for this course: *documentation portfolios* and *showcase portfolios*, the former to be maintained by students and the latter by the tutors. A documentation portfolio has also been referred to as a *working portfolio* as it serves as a holding tank for work that may be selected later for a more permanent assessment or display portfolio and it is differentiated from a work folder as it is an intentional collection of work guided by learning objectives (Danielson & Abrutyn, 1997). Showcase portfolios (or display or best work portfolios), refer to portfolios meant for exhibiting students' best work. The documentation portfolio in the writing course thus functions as a *working portfolio* comprising everything from brainstorming activities to drafts of finished products while the showcase portfolio functions as a record of the four specific assignments set for the successful completion of the course. In this manner, the assessment for this course combines both formative as well as summative evaluation through the use of the two different types of portfolios. In a handout on portfolio assessment, students are given explicit explanations of these two types of portfolios and their functions (see Extract 1).

Extract 1: Extract from handout on portfolio assessment distributed to students

*Documentation Portfolio:* This type is also known as the *working* portfolio. Specifically, this approach involves a collection of your work over time showing growth and improvement related to specific course objectives. Your Documentation Portfolio can include everything from brainstorming activities to drafts to finished products.

*Showcase Portfolio:* This type of portfolio is best used for summative evaluation of your mastery of key curriculum objectives. It will include final drafts of the four assignments (Definition, Essay, Review Paper and Abstract) along with self-reflection and peer-evaluation sheets for each.

To familiarise students with the portfolio approach, they are taken through the three main phases involved in the development of such a portfolio (see Extract 2).

Extract 2: Extract from handout on portfolio assessment distributed to students

***Organization and Planning:*** This initial phase of portfolio development entails decision-making on your part. Key questions that you should address are:

- How do I select materials to reflect what I am learning in this class?
- How do I organise and present the materials that I have collected?
- How will the portfolio be maintained and stored?

***Collection:*** This process involves the filing of meaningful products reflecting your writing experiences and course goals. The collection should include all the written work set out for the course. To facilitate the process, you may want to prepare a *Table of Contents* for your portfolio and organise all the materials in a sequential manner.

***Reflection:*** Wherever possible, there should be evidence of your reflections upon the learning process and the monitoring of your evolving comprehension of key writing skills. In this course, you will be required to complete self-reflection sheets that reflect your experiences and the thinking processes you have used for particular writing tasks. You will have to complete and file these for each of your assignments. In addition, you will have to include peer and/or teacher reflections upon the products and processes wherever appropriate.

We believe that transparency and accountability of grading procedures are necessary for students to be able to set appropriate learning objectives for them-

selves. Thus the multiple scoring strategies adopted for evaluation and the criteria for assessment are shared with students. Students are thus aware from the beginning of the course that their portfolios would be evaluated according to the following criteria (for the complete list of the criteria used, please refer to the form in Appendix 1):

- A well-formatted contents page
- A complete collection of the written assignments along with drafts arranged sequentially and clearly dated
- Understanding and application of checklists for different assignments
- Diversity of entries related to evaluation (e.g. self-reflection, peer-evaluation and teacher evaluation on assignments)
- Evidence of revision based on peer and/or teacher feedback
- Completeness, correctness, and appropriateness of documents

The following are the features of portfolios taken into account in the decision to adopt portfolio-based assessment for the academic writing course:

1. Portfolios reflect the learning objectives and outcomes of the course. In the writing course, the objectives are to develop skills in writing key scientific genres such as definitions, essays, review papers and the research report.
2. Portfolios focus on the *processes* of writing through pre-writing, writing and post-writing activities. Students are given opportunities to brainstorm in pairs, groups or by means of classroom discussions of target genres in order to come up with initial outlines. Checklists for various writing tasks are provided to guide students during the writing phase. In the post-writing phase, the three main activities include self-reflection, peer evaluation and tutor feedback.
  - *Self-Reflection*: To make students aware of their own learning processes, they are directed to respond to a set of thought provoking and problem oriented questions related to specific writing activities.
  - *Peer-evaluation*: Using a checklist, students are required to give each other feedback on how to improve their writing in terms of content, rhetorical structure, language and style. This strategy helps peers to gain insights not only into their own writing practices but also of the student being evaluated.
  - *Tutor feedback*: This takes the form of both written feedback as well as verbal feedback in conferencing sessions that are specially set aside for student-teacher consultations.

In the next section, an attempt will be made to demonstrate how some of these features of portfolios are implemented in the writing course.

### **How is the Portfolio Approach Implemented?**

The main objective of the writing course *The Art of Academic Writing* is to help science students with their academic needs as students and as practicing scientists in their future careers. With this aim in mind, the course focuses on many target scientific genres such as scientific definitions, popular science papers, review papers, abstracts as well as different sections of scientific research papers.

Although the course includes many different genres related to scientific writing, the approach in teaching them is the same comprising the following components: goal setting, process writing, self-reflection, peer-review of each other's writing, tutor feedback on individual writing tasks, and conferencing sessions with tutors. These components will be illustrated using the Review Paper assignment as a case study.

### **Setting Objectives**

The objective of the review paper writing task involves selecting relevant information from various readings to write a review with proper in-text citations. The goals are elaborated in the rubric for the task:

*Task:* Read Harvard President, Dr. Lawrence Summers' comments below and the many reactions in the form of articles that were triggered by this comment. Use the readings to write a 300 word review paper on the various arguments that were proposed to refute Dr. Lawrence Summers' claim. Your paper should have a proper introduction, body and conclusion, with paraphrases that are referenced correctly and synthesised coherently. Your paper should end a complete list of references.

The task indicates to students the importance of taking a critical stance in writing a review paper, paraphrasing and synthesising information coherently, citing borrowed information correctly, organising the paper in a three-part structure comprising an introduction, body and conclusion, as well as compiling a complete list of references.

### **Process Approach**

Students are taken through the different stages of writing the review paper rather than expected to produce a final product without feedback from their peers and

tutors. Practices such as multiple drafting and deep revision through peer and tutor feedback are encouraged as we believe that they not only enable students to write their way to richer perspectives on their topic but give teachers and/or assessors an opportunity to trace a student's progress more fully and reliably (Hamp-Lyons & Condon, 2000).

As a pre-writing task, students are given a sample review paper to analyse. The analysis takes into account the purpose of the paper, the intended audience, the structure of the paper as well as the citation and language conventions of the writer. After the analysis, students are given three readings on a related topic to review for a paper. Students then proceed to writing the research question before drafting the review paper. After completing their drafts, students are guided along the post-writing process through self-reflection, peer-editing and conferencing.

### **Self-reflection**

As mentioned earlier, the portfolio approach involves reflection and self-assessment on the part of the writer. According to Hamp-Lyons and Condon (2000), a writing classroom is the ideal place to provide opportunities for writers to activate and extend their meta-cognitive skills, and reflective writing is an appropriate vehicle for this. The writing course gives students an opportunity to reflect on their first drafts. For example, they are prompted to reflect on plagiarism and how it would affect them; they reflect on the rationale of including citations in terms of the four Cs: courtesy, collegiality, context and cooperation. Generally the self-reflection checklists in the course are designed with the aim of prompting students to ponder over problems they might have encountered within a particular genre of writing (see Appendix 2 for examples of questions and prompts used in self-reflection sheets).

#### *Self-reflection Checklist*

1. What are your views on plagiarism?
2. What strategies did you use in order to meet the four Cs of citations: courtesy, collegiality, context and cooperation?
3. What particular problems did you encounter whilst writing this review paper?
4. What do you think is the relevance of this writing to your other courses?

Students write their responses to these thought-provoking questions in reflection sheets. These take the form of insightful comments such as:

### *Insightful Responses*

1. It is not ethical as it infringes the rights of other people's work.
2. We acknowledge colleagues and other researchers who have influenced our work. Articles used in our reports are cited for the convenience of the readers to search for more information.
3. Problems encountered include:
  - Difficulties in stating the thesis
  - Inability to relate the three articles
  - Having difficulty to quote phrases correctly
4. It enables us to quote the research done by different scientists. It allows us to paraphrase sentences.

### **Peer-editing**

Peer-editing in writing classrooms encourages collaborative learning as it enables peers to take on the reciprocal roles of author and audience (Paris & Ayers, 1994). Through assessing other people's work, peers not only learn more about their own writing strategies but are also able to benefit from those of others. In the writing course, students give each other feedback with the help of a checklist that is specifically designed for this purpose. The questions in the checklist are divided into three basic categories: content, organisation, coherence and citation practice.

#### *Peer-editing Checklist*

1. Does the introduction describe the issue of focus clearly? Does the background information indicate the importance of the issue to self or society?
2. Does the review include multiple and legitimate sources of information?
3. Is the information from other sources well-documented using the relevant style required by the discipline?
4. Is the relevant information paraphrased well and presented in a clear and organised manner?
5. Is there evidence of analysis, evaluation and synthesis of the cited information?
6. Does the ending have sensible and appropriate concluding remarks? Does it tie the review points to the main issue raised in the introductory paragraph?

In order to peer-edit effectively, students need to understand the assignment thoroughly themselves and to know the target audience it is intended for. Students are advised to provide honest and constructive feedback by praising particular areas in the draft that work well, and identifying parts that seem to be weak. Below

are examples of peer reviews from student portfolios, the first of which combines praise with constructive criticism in contrast to the second one which is monosyllabic and therefore, ineffective:

*A Good Example of Peer Evaluation*

1. The introduction did explain and state the focus, however the focus is not in detail and not stated fully as parts of it are mentioned later in the 3<sup>rd</sup> paragraph.
2. The review does include multiple and legitimate sources of information.
3. It is well-documented
4. The relevant information is rather well paraphrased.
5. There is not much evidence provided to be frank.
6. The ending is quite appropriate as it gives a conclusion to the review. It does tie well.

*A Poor Example of Peer Evaluation*

1. Yes
2. No
3. Yes
4. Yes
5. Not much
6. Yes to all

For peer-editing to be successful, it has to be planned and orchestrated carefully in an atmosphere of trust and respect. In the writing course, this learning environment is created by fostering group work where students have to collaborate to complete set tasks. Students are also encouraged to set ground rules on appropriate communication behaviour (e.g. no put-downs; listen without interruption when someone is speaking, etc.). In addition, they learn to differentiate between positive and negative feedback by analyzing examples of both and then practicing how to give positive feedback. To peer-edit successfully, students are provided with specific guidelines to follow:

*Guidelines for Feedback*

- Be specific both in your praise and your criticism.
- Be positive.
- Focus on how the student can change the paper to improve it.



Remember how it feels when someone else criticises your work ~ you are more receptive to suggestions for changes when you feel the other person values your work and is criticising it with respect; not harshly. However, it does not help the other person if you don't give any suggestions or if you just say, Great!f just because you want to be kind or not offend the person. When you don't understand something, the best thing to do is to ask for clarification.

### **Conferencing**

Tutor-student conferencing is an important component of the writing course. In conferencing related to the review paper writing assignment, the sessions focus on students taking a critical stance, selecting appropriate organisation, and utilising proper citation methods. Students use the feedback received to improve their drafts before submitting them for assessment. The underlying purpose of these conferences is to help students discover their strengths and weaknesses, appraise progress and move towards independent learning (Paris & Ayers, 1994).

### **Portfolio Management**

Maintaining portfolios is a daunting and time consuming task for both tutors and students alike. To make the process manageable, it is essential to spend some time thinking through a number of practical and logistical issues and to share these with students at the beginning of the course. The starting point is to define the purpose of the portfolios as this determines how the portfolio is to be assessed, built and stored. For ease of compiling and reference, students are also advised to date and label all their documents right through the semester.

Electronic portfolios or e-portfolios are currently being explored as an alternative to paper portfolios. E-portfolios will solve the problem of storage as well as provide easy access to the contents of the portfolios. This will increase the amount of feedback that students can receive on their writing. Students can also tap on the vast resources of the Internet to enhance their learning and add digital contents (e.g. video clips, images, etc) to their portfolios. However, both paper portfolios and e-portfolios have some common benefits that will be explored in the next section.

### **Why is Portfolio-Based Assessment Beneficial?**

The students who completed the 13-week writing course made noticeable progress in a number of areas. The first has to do with attitude to learning and writing. An obvious benefit of the portfolio approach to writing was that the students became more active and reflective learners who took increasing responsibility for their own

learning. This shows that our findings are consistent with those of Breen and Mann (1997) that portfolio assessment is more effective in developing autonomy in learning than traditional assessment methods. This type of autonomy is crucial in learning scientific writing skills, which are often developed through a comparatively longer period of time. Learners need to be able to learn independently to continue to develop their scientific writing skills after the 13-week writing course is over.

Second, in the process of evaluating their work and selecting the best piece to put in the portfolios, learners also become more reflective learners (Santos, 1997). Students examine the strengths and weakness of each piece of writing and reflect upon the feedback they have received from their peers and tutors. Higher thinking skills and varied meta-cognitive strategies are often needed in this type of learning activity. Learners are therefore more likely to develop some important higher thinking skills and learn to use essential meta-cognitive strategies that successful scientific writers usually adopt.

Third, as portfolios show the work of students over a period of time, learners therefore have the opportunity to monitor their longitudinal progress (Breen & Mann, 1997). In fact, longitudinal progress is usually more obvious to learners than progress made over a short period of time. Therefore, learners are motivated to work harder to become successful writers. In traditional writing assessment, however, learners can only see their performance in one particular writing task. When they inadvertently perform poorly over that task, they may lose self-confidence and perceive themselves negatively as writers. This inferiority complex may later become a mental barrier which prevents them from becoming good scientific writers.

Finally, another important spin-off of the portfolio approach is that it helps to change the dynamics of the learner-teacher relationship. The relationship between learners and teachers becomes more collegial rather than hierarchical (Fogarty, 1996). In the self reflection and feedback tasks, as students share their views on curriculum content such as suitability and relevancy of teaching materials, the problems they face in meeting the demands of the different writing tasks, teachers are able to understand learners' needs better as well as receive important feedback to modify the goals and content of the curriculum and learning tasks (Nunes, 2004). When learners see that their feedback is taken seriously by the teachers, they are more likely to collaborate with teachers to learn to become better scientific writers. This collegial relationship is more like that of the master-apprentice or master-disciple relationship which is more helpful in developing a craft, in this case, the craft of academic writing.

## Conclusion

Overall, portfolios have proven to be a powerful vehicle for achieving the writing goals set for the course. In the portfolio approach both instruction and assessment are intertwined (Danielson & Abrutyn, 1997) as the teacher makes the learning objectives clear and takes the student through the process of mastering relevant skills while at the same time continuously assessing student progress. Above all, learning and assessment take place in collaboration, the teacher sets the standards and the students use these standards to evaluate their own progress with the help of feedback from peer and tutors. In the process of developing and managing their portfolios, students take charge of their own learning.

The skills required of students today are more demanding than those required in the past. A growing number of jobs in our information economy require highly developed intellectual skills and technological training, requiring professionals to access resources and perform complicated tasks at high levels of literacy to survive in today's world. Research on human learning and performance has suggested that many tests currently used fail to measure students' higher order cognitive abilities or to support their capacities to perform real-world tasks (Resnick, 1987; Sternberg, 1985). An approach to writing assessment based on portfolios meets the requirements of authentic assessment that focuses students' energies on challenging performance oriented tasks that require analysis, integration of knowledge, and creative thinking.

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### Appendix 1: Criteria For Portfolio Assessment

Name of Student: \_\_\_\_\_

Tutorial Group: \_\_\_\_\_

CRITERIA	ASSESSMENT			
1. Content (30%) - Includes all the relevant course materials (handouts, outlines, drafts, etc.) - Includes self-reflection sheets & peer-editing sheets	E	G	S	N
2. Organisation (20%) - Has a well-formatted contents page - Displays clear titles & dates on all materials - Files all materials sequentially	E	G	S	N
3. Grammar & Style (20%) - Shows attempts to correct grammatical & stylistic errors - Shows improvement in grammar & style	E	G	S	N
4. Growth & Development (20%) - Reveals growth and development in relationship to key curriculum objectives & outcomes - Shows understanding and application of checklists for different assignments - Shows attempts to incorporate tutor and peer feedback in revising & editing drafts Shows meaningful self-reflection	E	G	S	N
5. Appearance - Looks creative, professional & visually appealing	E	G	S	N
Overall Grade				

E ~ Excellent, G ~ Good, S ~ Satisfactory, N ~ Needs Improvement

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Appendix 2: Self-Reflection Sheets

Examples of reflection questions or prompts include:

### Selection Questions/Prompts

- Why did you select this piece?
- Why should this sample be included in your portfolio?
- How does this sample meet the criteria for selection for your portfolio?
- I chose this piece because <sup>a</sup>

### Growth Questions/Prompts

- What are the strengths of this work? Weaknesses?
- What would you work on more if you had additional time?
- How has your \_\_\_\_\_ (e.g., writing) changed since last semester?
- What do you know about \_\_\_\_\_ (e.g., science essay) that you did not know at the beginning of the semester?
- Looking at (or thinking about) an earlier piece of work, how does this new piece of work compare? How is it better or worse? Where can you see progress or improvement?
- How did you get stuck<sup>f</sup> (e.g. writer s block) working on this task? How did you get unstuck<sup>f</sup>?
- One skill I could not perform very well but now I can is <sup>a</sup>.
- From reviewing this piece I learned <sup>a</sup>

### Goal-Setting Questions/Prompts

- If you were a teacher and grading your work, what grade would you give it and why?
- Using the appropriate rubric, give yourself a score and justify it with specific traits from the rubric.
- What do you like or not like about this piece of work?
- I like this piece of work because <sup>a</sup>

### Effort Questions/Prompts

- How much time did you spend on this piece of writing?
- The work would have been better if I had spent more time on <sup>a</sup>
- I am pleased that I put significant effort into <sup>a</sup>

**Overall Portfolio Questions/Prompts**

- What would you like your \_\_\_\_\_ (e.g., lecturers, fellow students) to know about or see in your portfolio?
- What does the portfolio as a whole reveal about you as a learner (writer, thinker, etc)?
- A feature of this portfolio I particularly like is <sup>a</sup>
- In this portfolio I see evidence of <sup>a</sup>

*Source* (adapted): Mueller, J. 2003. *North Central College*, Naperville, IL.