

Supervision and Scholarly Writing: Writing to learn – Learning to write

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ABSTRACT This paper describes an action research project on postgraduate students' scholarly writing in which I employed reflective approaches to examine and enhance my postgraduate supervisory practice. My reflections on three distinct cycles of supervision illustrate a shift in thinking about scholarly writing and an evolving understanding of how to support postgraduate students' writing. These understandings provide the foundation for a future-oriented fourth cycle of supervisory practice, which is characterised by three principles, namely the empowerment of students as writers, the technological context of contemporary writing, and ethical issues in writing.

Introduction

One of the central activities of doctoral supervision is to support the student to produce a high quality thesis and to complete that thesis on time. Given the problematic nature of scholarly writing for postgraduate students (e.g., Creme & Lea, 1997), and the focus on timely completion (Department Education, Science and Training [DEST], 2002), I have sought to improve my practice as a supervisor through self-critical inquiry (Stenhouse, 1981) of students' scholarly writing within the discipline of Education. This paper commences with an overview of the issues in scholarly writing. My supervision in relation to scholarly writing is then explored through reflections on three cycles of practice. These reflections inform a fourth cycle of practice, which is future-oriented, and identifies a set of principles for strategically enhancing my supervision. The paper concludes with a brief comment on how my reflections in this action research project have impacted on my understanding of scholarly writing.

Scholarly Writing

Scholarly or academic writing is the topic of numerous publications for students (e.g., Creme & Lea, 1997) and supervisors (e.g., Delamont, Atkinson, & Parry, 1999). It is distinguished from other writing by evidence of critical thinking about the content, scholarly references, the adoption of a particular style of formatting, and a recursive writing process that supports the development and communication of ideas (Björk, & Räisänen, 1997). The importance of this iterative process for effective communication is captured in the adage "Hard writing makes easy reading. Easy writing makes hard reading." Additionally, scholarly writing represents a valued contribution to the knowledge base (Cooper, Baturo, & Harris, 1998). Hence, scholarly writing is both a process that facilitates the thinking about ideas and a product with which to communicate those ideas. In addition to the generic aspects of scholarly writing, there are discipline specific differences that represent the practices of a particular community, such as in mathematics education research (e.g., Cooper et al., 1998). Thus, scholarly writing

in a particular field of a discipline involves appropriating the writing practices of that community.

Issues in Scholarly Writing

A comprehensive discussion of the numerous issues in scholarly writing (e.g., ESL students) is beyond the scope of this paper. However, four issues in scholarly writing that have particular relevance to my supervision are (1) the paradox of scholarly writing, (2) errors in writing, (3) the ethics of writing, and (4) timely completion.

1. The Paradox of Scholarly Writing

Scholarly writing, presents a paradoxical situation for postgraduate students. These students are undertaking higher degree studies subsequent to successful undergraduate or masters studies, however, perhaps for the first time in their life, they may need to focus on learning how to write, to receive support to improve their writing, and to change their writing habits to complete a major writing task on time (Delamont et al., 1999). Given, the need for the majority of postgraduate students to learn about scholarly writing, students' difficulties with the academic genre should be considered to be the norm, rather than the exception.

2. Errors in Thesis Writing

There are three major categories of writing errors in theses according to Cooper et al. (1998), who undertook a literature review and conducted an analysis of thesis writing within Education (see Appendix 1). Firstly, there are *mechanical errors* related to general writing (e.g., spelling) and scholarly writing (e.g., unsubstantiated claims). Secondly, there are *errors in the microstructure of writing* related to the flow of argument within and across paragraphs (e.g., connectives) and inconsistencies in writing (e.g., in sequencing). Finally, there are *errors in the macrostructure of writing* (e.g., quality and clarity of purposes). These categories of errors are helpful in establishing what types of errors predominate in students' work and the extent and type of writing support they require. Students who have substantive general-writing errors at the commencement of postgraduate study are "at risk" because in addition to learning how to write in a more academic genre, they also need to address their pre-existing difficulties to produce high quality writing.

3. Ethical Issues in Writing

Ethical issues that specifically relate to writing involve publication, authorship, training and fairness (Australian Association for Research in Education [AARE] guidelines, 1998). Issues related to publication and authorship provide guidance about students' rights as authors and their publication responsibilities as researchers (see Appendix 2). The issues of authorship, training and fairness impact on the role of supervisors particularly with respect to co-authorship with students, training students in the ethical standards of writing, and being fair in the review of student work (see Appendix 2). Plagiarism is not specifically identified in the AARE guidelines (AARE, 1998). However, plagiarism is an ethical issue of authorship in which an individual misappropriates another's work by representing it as his or her own (e.g., Björk & Räisänen, 1997; Gibson & Killingsworth, 1996).

4. Timely Thesis Completion

Notwithstanding a student's standard of writing at the commencement of a thesis, every student needs to aspire to timely completion. The thesis is a research project report and in industry on time completion of reports is essential. Additionally, the goal of on time completion for a writing task provides justification for paying close attention to the scope of a

project and its milestones (White, 1998). Furthermore, slow completions reduce university research funding and postgraduate student places (DEST, 2002).

Supporting Students to Become Scholarly Writers

Various strategies are employed to support postgraduate students to become scholarly writers including formal writing courses and reading lists, writing activities, and peer writing groups (e.g., Gibson & Killingsworth, 1996). However, the provision of ongoing individual feedback on writing from a supervisor is distinctive of postgraduate supervision. This approach assumes a cognitive apprenticeship model of teaching and learning in which the teacher models, scaffolds, and coaches the student to support the development of new knowledge, and the student engages cognitively by articulating, reflecting, and exploring new knowledge (Collins, Brown & Newman, 1989). Ideally, the supervisor provides a writing role model as an active researcher and publisher (Brown, 1994). However, notwithstanding the facilitatory role of supervisors as teachers, it is fallacious to assume that supervisors are necessarily scholarly writers or write regularly themselves (Delamont et al., 1999). In particular, in thesis writing, the supervisor needs to assume the roles of project manager, writing mentor, wordsmith, and editor and proof reader (White, 1998). Additionally, the apprenticeship model can be ineffective if the students assume a passive role in improving their writing. Students need to “(a) become aware of their writing weaknesses; (b) acquire the appropriate knowledge; and (c) take responsibility for monitoring and evaluating their writing” (Cooper et al., 1998, p. 274). Brown (1994) emphasises that both students and supervisors need to master a range of writing tasks of varying complexity.

Cycles of Reflective Practice

Critical reflection is important in teaching (i.e., supervision) because it informs actions, which increases the likelihood that these actions will have the desirable effects in practice (Brookfield, 1995). However, solving the problems of practice is not straight forward. Schön (1983) argues that problem setting is integral to problem solving in practice:

(Problems) must be constructed from the materials of problematic situations which are puzzling, troubling and uncertain. In order to convert a problematic situation to a problem, a practioner must do a certain kind of work. He must make sense of an uncertain situation that initially makes no sense ... When we set the problem, we select what we will treat as the “things” of the situation, we set the boundaries of our attention to it, and we impose upon it a coherence that allows us to say what is wrong and in what directions the situation needs to be changed. Problem setting is a process in which, interactively, we *name* the things to which we will attend and *frame* the context in which we will attend to them (emphasis in original). (p. 40)

The benefit of naming what will be attended to and framing its context accrues through the process of planning, action and reflection (Schön, 1983). Each cycle of practice involves the explication of a new theory, and the development of new understanding about the phenomena through theory testing. Theories can be tested through experiments or through the retrospective analysis of the outcomes of previous actions. These cycles of practice can enhance professional practice (Aspland, & Brooker, 1998; Dick, 2002) through systematic self-critical inquiry (Stenhouse, 1981) because by repeatedly problem setting, a practioner can clarify the problem and steer him- or herself towards the problem solution.

Since my commencement as a supervisor, there have been three distinct cycles in my practice. Cycles 1 to 3 address being a neophyte supervisor; errors and experimentation in writing; and individual differences and systematic reflection respectively. Thus, these cycles span

reflection-*in*-action, reflection-*on*-action, and reflection-*about*-action (e.g., Day, 2000; Schön, 1983). Cycles 1 and 2 are described briefly to provide the background context for Cycle 3. Guiding students' writing is a typical activity of a supervisor. Hence, Cycle 3 features two reflective approaches advocated by Watson and Wilcox (2000) "as tools for studying and learning through the ordinary moments of professional practice" (p. 67). The first approach is to utilise stories as a means of reflecting on practice (Watson & Wilcox, 2000). This approach has been effectively employed by others to explore issues in supervision (e.g., Aspland, Hill, & Chapman, 2002). The second approach is to "read" issues at three levels to facilitate insight into the issues (Watson & Wilcox, 2000). A "quick reading" provides a wholistic impression of the issue; "zooming in" provides a close reading of a particular aspect of the issue; and "zooming out" contextualises the issue. The insights about my practice derived from Cycles 1 to 3 are presented in a future-oriented Cycle 4, which represents my reflection-*for*-action (e.g., Day, 2000; Schön, 1983). Cycle 4 focuses on being proactive in promoting student writing and provides an opportunity for further learning about my practice through self-monitoring (Aspland, & Brooker, 1998; Dick, 2002).

Cycle 1: Neophyte Supervisor

Cycle 1 was marked by my expectation of an *implicit* contractual relationship between my students and me. I anticipated that postdoctoral students would write regularly, use writing to articulate and clarify their ideas, assume the major responsibility for the mechanics of writing, and respond to feedback in subsequent drafts. Accordingly, my role as a supervisor was primarily to provide feedback on the conceptual and methodological aspects of students' work in a timely manner, and to assist in the editorial process. In retrospect, although I consciously differentiated postgraduate students' writing from undergraduate students' writing, I conceived postgraduate students' writing as similar to that of an academic co-author. This cycle of neophyte supervisor was short-lived because I rapidly became aware that most postgraduate students have yet to develop the skills of academic authors and that postgraduate students face a larger writing task in the production of a thesis than academic authors in the production of article or book chapters.

Cycle 2: Errors and Experimentation in Writing

Cycle 2 was characterised by my attention to supporting students to address their writing errors. I initially corrected all errors in written feedback, which students duly addressed in subsequent drafts, and gave little emphasis to these errors in subsequent interactions with students. However, after students repeated these same errors numerous times in their drafts of new work, I realised that a more overt support strategy was required. I expressed to students that I had high expectations of the quality of their work and emphasised that it was their responsibility to proof read work carefully prior to submission for feedback (e.g., Delamont et al., 1999). Additionally, when providing feedback on drafts I only marked repeated errors for a couple of pages and then simply noted on the draft that this error needed to be checked throughout. In subsequent meetings with individual students, I then explored whether these were careless errors or whether the students had difficulty with particular aspects of writing, such as the use of apostrophes. Irrespective of whether students' writing errors were due to carelessness or a lack of knowledge, improving problematic aspects of writing became priority goals for individual students. This approach during student-supervisor meetings required reflection-*in*-action (e.g., Day, 2000), which can be challenging because it needs an immediate response from the teacher. However, the American Psychological Association [APA] publication manual (APA, 2001) proved an invaluable reference. This strategy was effective because students assumed some responsibility for proof reading (Delamont et al., 1999), and developed their capability in writing through strategic support that focused on

specific aspects of writing (Lea, & Street, 2000). This cycle concluded with the realisation that though a student-centred approach that focused on improving errors in students writing was effective, scholarly writing in a thesis involves much more than a set of discrete writing tasks.

Cycle 3: Individual Differences and Systematic Reflection

Cycle 3 was marked by a heightened awareness of individual differences in students as writers and an appreciation of the need to become more knowledgeable about issues in postgraduate students' writing. Four students, whom I supervised and whose writing needs seemed to be unique, are described here. To ensure confidentiality and for clarity, pseudonyms are used and all students are referred to in the past tense. My interpretations of these four students' writing comprise a systematic reflection of my practice through a "quick read", "zooming in", and "zooming out" (Watson, & Wilcox, 2000). The "quick read" involves the identification of the student as a particular type of writer through his or her predominate writing behaviour. Prototypes serve as summary representations encapsulating the salient properties of a category (Varela, Thompson, & Rosch, 1993) and are especially useful for determining the degree of similarity between with other individuals through indirect comparison (Sternberg & Horvarth, 1995). Thus, the identification of students as prototypical writers highlights their particular needs as a writer and provide an exemplar for the identification of future students who may exhibit similar writing behaviours. "Zooming in" on key aspects of each student's writing errors (see Appendix 1) identifies the strategic support needed. "Zooming out" contextualises students' writing in relation to broader issues in postgraduate writing (i.e., the writing paradox, writing errors, ethics, and timely completion).

Denise - a Dependent Writer

Denise was a relatively capable writer. However, she often exhibited "writer's block" that could be overcome by breaking writing down into subtasks (White, 1998). During our meetings, Denise would attempt to take copious notes about how to respond to feedback and what to write next. This technique is helpful for students who experience writer's block because it provides a prompt for the commencement of future writing (Gottlieb, 1994). However, Denise's notes were scattered throughout her draft writing and her detailed note taking limited her interaction during meetings. In response to Denise's need for substantial guidance and to assist her to become more organised with note taking, I included a brief summary of the key points on my written response to her drafts. Throughout our discussion of these key points during subsequent meetings, we paused and I made a succinct action plan for Denise. The plan was made electronically so that it was set out clearly, was easy to modify, and provided a common reference point for subsequent issues of clarification. This highly structured approach was initially time consuming during meetings but gradually, Denise assumed responsibility for note taking during meetings, and came prepared with her own action plan. Hill (2002) contends that students who take the initiative, such as Denise, have demonstrated their preparedness to undertake the responsibility for their thesis. Denise's writing block initially posed a major ethical dilemma for me because the ethical guidelines of authorship restrict the writing that should be undertaken by a supervisor (AARE, 1998). Hence, there was a need to balance the extent of my role in the writing of the text of this thesis (Delamont et al., 1999; White, 1998). However, Denise's positive response to planning her writing made me appreciate that it was not writing *per se* that underpinned Denise's writing block but a lack of knowledge about the content and organisation of a particular writing task.

Connor - a Confident Writer

Connor was a prolific writer, who had work published during his doctoral studies. Publication during graduate studies is beneficial because of the feedback that students can obtain during the review process (Gottlieb, 1994). Additionally, Connor fulfilled his implicit ethical responsibility of publicly disseminating research findings by contributing to the knowledge base (Stenhouse, 1981). However, he also inadvertently engaged in unethical writing behaviour by including me as a co-author without my permission. The ethics of authorship extend beyond the omission of an author on a paper to the inappropriate inclusion of an author: "Anyone listed as an author must have given consent" (AARE, 1998).

Connor was competent in the production of relatively small pieces of writing, such as a journal article, and made few mechanical or microstructure errors. However, Connor had difficulties with all aspects of the macrostructure. In particular, Connor had difficulty discriminating between thesis components (Cooper et al., 1998). Thus, he would often repeat sections of writing from earlier chapters ostensibly to provide the context for the new chapter. This error was addressed by using the "search" facility in Microsoft WORD to identify repeated text and by encouraging Connor to replace repeated text with concise summaries or use cross-referencing. Despite, Connor's awareness of his macro level errors in writing, it often took him a number of drafts to correct these errors. Although he was an industrious writer, he had a tendency to rush through corrections, which often resulted in many issues identified on a previous draft remaining unresolved. Thus, Connor needed support to monitor his work from the reader's perspective (Björk, & Räisänen, 1997; Brown, 1994; Cooper et al., 1998). Connor's impulsivity was managed by requiring him to rework small sections of a thesis component, and wait for confirmation that his corrections were appropriate before proceeding with further corrections. Connor responded well to this approach and began sending test sections for feedback as a precursor to producing a lengthy writing piece. Technology played a major role in Connor's supervision. Email communication facilitated rapid response to queries and turn around of work, and writing was often submitted and returned electronically using the "comments" and "track changes" tools in Microsoft WORD. Connor's supervision also highlighted how a new generation of technologically proficient students represent a hybrid of face-to-face and distance learners who exploit technology to meet their needs.

Rita - a Resistant Writer

Rita acknowledged herself to be a poor writer whose writing errors spanned the mechanical, macro and micro levels. She was co-supervised by a colleague, who was an experienced supervisor and who played an active role in supervision. My colleague and I met regularly with Rita and provided her with various forms of writing support including planning sessions for writing draft components, oral and written feedback on drafts, email guidance, sessions where writing was modeled and her writing scaffolded, and handouts on writing style. Additionally, we organised specialist assistance to support her writing difficulties. However, more problematic than Rita's actual writing difficulties was her lack of commitment to improving the quality of subsequent drafts and her argumentative stance towards writing feedback. For example, Rita repeatedly made errors in the use of "and" and "&" between authors within brackets in the text. This error was corrected in written feedback using "track changes" and noted in "comments" in Microsoft WORD to show the correct APA style and highlight the error: "(Noss ~~and~~ & ¹Hoyle, 1996) ...¹I did a search and replace on "and" and "&" throughout [this section of work]." After broaching her repeated lack of attention to this style issue in a meeting, Rita argued about the need to conform to this particular style, which is a requirement of her disciplinary field. Rita's argumentative stance was also evident in her

articulation that voicing her opinion [without substantiation] was adequate and important in the literature review. Rita, her co-supervisor and I, had numerous conversations about the role of references in the literature review and the types of references needed, and provided examples of suitable references. I also provided email guidance between our meetings:

Academic writing is a very different genre from talking/writing as a teacher/administrator/curriculum advisor. ... [you] ALWAYS need to include reference support or develop a very clear line of logic - simply stating things, which people assume to be true or appropriate is insufficient. (Excerpt, my email 6 Feb 2003)

After numerous months of writing support, increasing frustration with Rita's attitude to scholarly writing and her limited writing progress, my colleague and I decided that we were no longer prepared to supervise Rita. At this point, we felt that we had exhausted the ways in which we could contribute to this student's successful thesis completion, for example through modifications to our own pedagogy and our management of organisational factors (e.g., time availability). While this outcome was not ideal, the timing of our decision was appropriate at the confirmation stage in doctoral candidature because it represents the first major task of project management in the thesis (White, 1998). At this point, Rita had failed to adequately demonstrate her writing capability as a doctoral candidate, and hence, was unlikely to achieve timely completion, which is a goal for postgraduate students (DEST, 2002).

Sherry – a Sporadic Writer

Sherry was a relatively competent writer, who repeatedly failed to meet negotiated deadlines for particular pieces of writing. However, unexpectedly Sherry would produce a large quantity of writing and request a meeting within a few days for feedback. As a supervisor, it was difficult to maintain interest in and respond to Sherry's work because of the time lag between each piece of writing. Due to the difficulties I was experiencing with Sherry's supervision and with her co-supervisor at a distance, I enlisted an experienced supervisor to act as my mentor. Thus, I recognised myself to be a learner who needed support to adequately fulfil my role supervising Sherry. My mentor assumed four important roles in Sherry's supervision. Firstly, he provided reassurance that the strategies that I attempted to employ with Sherry, such as encouraging regular writing, negotiating regular meeting times, establishing timelines, and prompting Sherry about due dates for pieces of writing (e.g. Brown, 1994; Gottlieb, 1994), were appropriate — although in this case ineffective. Secondly, he forewarned me that despite my efforts, Sherry's approach to writing was likely to result in a lengthy completion time and she needed to accept the responsibility for managing her writing tasks. Sherry acknowledged that doing a doctorate was a low priority for her and stated that she was only doing it because it was expected of an academic. Thus, she lacked the emotional excitement of writing up a thesis and the ensuing motivation (Delamont et al., 1999). Additionally, Sherry's poor time management of writing also had the potential to impact negatively on her motivation (Gottlieb, 1994). Thirdly, my mentor made me appreciate the unreasonableness of Sherry's requests for rapid feedback on a quantity of unexpected work. Finally, my mentor instilled in me the importance of documenting interactions with "at risk" students, such as Sherry, who repeatedly fail to respond to guidance. Thus, I used email to send confirmations of our decisions about writing tasks and to prompt Sherry about writing tasks and timelines we had negotiated. I also kept copies of Sherry's emails postponing meetings due to her failure to meet writing goals. This trail of documentation over many years further raised my awareness of the pattern of Sherry's unproductive writing behaviour and reassured me that irrespective of the outcome I had made repeated and appropriate efforts to support Sherry's thesis writing.

Systematic reflection on these four students' stories about scholarly writing revealed that individual differences in writing behaviours and skill impacted greatly on my supervision. A "quick reading" of these students' predominant writing behaviors revealed that these four students were quite different types of writers — a Dependent Writer, a Confident Writer, a Resistant Writer, and a Sporadic Writer. "Zooming in" on these individuals writing behaviours and skills elaborated on these differences and highlighted student-centred writing issues that needed to be addressed through supervision. "Zooming out" identified broader issues that also needed to be accommodated in supervision. For example, writer's block was a major impediment for the Dependent Writer however this blockage needed to be overcome without compromising the ethics of her authorship. Observation of the Dependent Writer's efforts to write detailed reminders and her disorganised notes cued me to trialing the creation of action lists for writing, which subsequently proved to be effective. The other three students' stories also deepened my understanding of supervision and scholarship. The Confident Writer's story revealed that confidence in writing does not necessarily equate with capability. Additionally, it highlighted that the scope of thesis writing differs substantively from other scholarly writing tasks, such as writing a journal article. The Resistant Writer's story suggested that not all commencing students will complete or will complete with their initial supervisors. The Sporadic Writer's story revealed how problematic erratic writing can be to timely thesis completion. It also revealed how a mentor can play an important role in supporting a supervisor in a difficult or novel supervisory situation. This cycle concluded with a shift in thinking from my past and current supervisory practices to my future practice in supporting scholarly writing.

Cycle 4: Being Proactive and Future Directions

My reflections in Cycles 1 to 3 raised my awareness of supervisory practices I would like to improve in subsequent work supporting postgraduate students' writing. However, in recognition of the challenges of curriculum change (Clark, 2001), only key issues are targeted for improvement and my success in achieving these changes will be monitored. These curriculum changes are presented as three principles to underpin my future practice: the Empowerment Principle, the Technological Principle and the Ethical Principle.

Empowerment Principle

The empowerment principle recognises the importance of postgraduate students being able to produce high quality writing and meet writing deadlines. Thus, this principle is an application of the fundamental role of a teacher, which is to support the student to become a learner (Fenstermacher, 1986). Learning to produce scholarly writing entails students accepting responsibility for improving their writing and meeting deadlines, and capitalising on supervisor feedback. I can further support students writing by encouraging them to participate in activities designed to support scholarly writing, such as writing seminars, and encouraging students to provide a community of support for each other where students read and review each other's work (Gottlieb, 1994; Roth & McGinn, 1998). Through these strategies, the responsibility for a students' writing is shared by the student themselves, me as the teacher, and the student community.

Technology Principle

My reflection on Cycles 1 to 3 revealed my limited use of technology in supervision. Technology has substantial potential for learning and communication; hence I need to be proactive in encouraging students to become technologically proficient and capitalise on technology as a medium for learning. This principle will be enacted through four goals. Firstly, rather than adjust my technology use to a student's comfort level, I will require and

support all students to become technologically proficient in basic technologies including word processing, electronic mail and computer conferencing (Laurillard, 1999; Petelin & Durham, 1992). Secondly, I will advise students of a range of electronic self-help writing resources and use these with students (e.g., Queensland University of Technology [QUT], 2000). Thirdly, I will require students to use technology as a “mind tool” that can extend thinking beyond amplification (Pea, 1985). This could occur, for example, through the requirement that students create two alternative structures for their literature reviews using the outline view in Microsoft WORD. This emphasis focuses on the qualitative aspect of technology, rather than the quantitative aspect of technology that is contributing to the information glut (Shenk, 1997). Finally, I will facilitate the development of a virtual community of student writers (Lea, 2000), who can provide peer support for each other’s writing (Gottlieb, 1994). This principle capitalises on the technologies that have been developed for distance education (Department of Education, Training and Youth Affairs, 2001) but can be utilised by all students.

Ethical Writing Principle

The majority of students are aware of the basic ethical issues involved in conducting research through their submission of a project plan to the University ethics committee (e.g., QUT University Human Research Ethics Committee, n. d.). However, with the exception of plagiarism, there appears to be scant attention in postgraduate training to ethical practices in writing. Hence, I plan to be proactive in familiarising my students with ethical practices in writing, and encouraging open discussion of questionable practices of authorship. Because professional communities provide a model of practice for students, I will also explore the ethical standards that are in operation in our local academic community. Unethical standards of writing in the local community would indicate the need for awareness raising of staff.

Concluding Comments

My supervision of postgraduate students’ scholarly writing is underpinned by a performance-orientation that focuses on supporting students to produce a high quality thesis within the time guidelines. Through reflection on cycles of my supervisory practice, hitherto hidden aspects of my practice were uncovered, and issues of concern related to students’ scholarly writing were identified. Cycles 1 and 2 provided the backdrop for the systematic exploration of my supervision of postgraduate students’ writing in Cycle 3. Students’ stories in that cycle and the interpretation of their work at different levels provided a deeper understanding of the breadth of issues related to the supervision of postgraduate writing. My reflection on this cycle underpins the principles proposed in Cycle 4 related to empowerment, technology, and ethics. These four cycles represent my growing appreciation of the complexity of scholarly writing and its constituent elements. Cycle 1 revealed the emergence of my conception of a postgraduate student writer as distinct from an undergraduate or academic writer (e.g., Swales & Feak, 1994). Cycles 2 and 3 correspond to the first of Lea and Street’s (2000) three models of writing in higher education. Cycle 2 focused on a student skills perspective and deficits in writing. Cycle 3 represented writing as cultural practice of academic discourse embedded influenced by the contemporary context. However, unlike Lea and Smith’s highest level of student writing in higher education, which focuses on academic literacies in which students’ negotiate conflicting literary practices, my Cycle 4 is a triarchic hybrid that emphasises (a) essential core elements of scholarly writing and the culture in which it is practised (Empowerment Principle); (b) seeks to employ an under-utilised tool and medium (Technology Principle); and (c) explores a fundamental but seemingly overlooked issue (Ethical Principle). Thus, these principles contribute towards addressing the quality control requirement for evidence-based curriculum practice in an era of accountability (Slavin, 2002).

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Appendix 1

Categories and Types of Writing Errors in Theses

<i>1. Mechanical Writing Errors</i>	<u>General-Writing</u> Spelling, Use of apostrophe, Hyphenation, Punctuation, Subject/verb agreement, Tense, Referencing (punctuation), Wrong or missing preposition, Inappropriate words, Sexist language, Ethnically biased language, Other errors <u>Scholarly Writing</u> Unsubstantiated claims, Synthesis of literature, Circumlocution, Tautology, Value-laden words, Omission of articles, Incomplete sentences, Dangling or misplaced modifier, Structural ambiguity
<i>2. Errors in the Microstructure of Writing</i>	<u>Flow of argument within and across paragraphs</u> Connectives, Placement of phrases, Convoluted sentences <u>Inconsistencies</u> Inconsistencies in sequencing, Inconsistencies in relationships, Inconsistencies in connections, Switches in argument claim, Logical development
<i>3. Errors in the Macrostructure of Writing</i>	Quality and clarity of purposes, Consistency across components (e.g. chapters), Relationship among components, Discrimination between components, Presentation of the dissertation

(summarised from Cooper, Baturo, & Harris, 1998, pp. 258, 266-270)

Appendix 1

Ethical Issues Related to writing

Publication

- Researchers have a duty to disseminate research results to stakeholders, to other researchers, to their students and to the general public.
- The first duty of a researcher is to reach the widest possible audience, not to maximise personal benefit. Arrangements concerning publication, while recognising entitlement to financial benefit by the authors, must not restrict the availability of intellectual products to scholars, students and the public.

Authorship

- Intellectual ownership is a function of creative contribution. It is not a function of effort expended, nor of formal relationship or status.
- All those and only those who have made substantial creative contributions to a product are entitled to be listed as authors of that product. These may include research assistants and/or students.
- Authorship and principle authorship are not warranted by legal or contractual responsibility for or authority over the process that generates an intellectual product. (Supervisors of students' research, for instance, do not have an automatic right to authorship.)
- Anyone listed as an author must have given consent.

Training

- Training in understanding the ethics of research should be part of the training of researchers. This should involve direct teaching, advice and example in relation to the research of both trainer and student.

Fairness

- Researchers should be fair in their evaluation of research performance and should communicate that evaluation fully and honestly to the student. In judging the output of trainee researchers, examiners should be mindful of the standards of the profession and of the possibility of competent disagreement.
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(Excerpts from Australian Association for Research in Education, 1998).