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Frameworks and freedoms: Supervising research learning and the undergraduate dissertation

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Frameworks and freedoms: Supervising research learning and the undergraduate dissertation

Abstract

Much current debate about undergraduate student research involves a focus on 'students as partners' and co-constructors of knowledge (Healey, Flint & Harrington 2014, 2016). This debate reveals interesting tensions between student freedom and the role of structuring frameworks. Undergraduate lecturers and research supervisors might feel we are in a quandary concerning how far we can help manage a balance between supportive frameworks and the independence that student researchers need to develop. Will the use of the Research Skill Development (Willison & O'Regan, 2006/2018) framework and other frameworks at every step of the undergraduate research journey form a constraint, or an essential scaffold? This paper considers frameworks, scaffolds and the need for freedom and creative co-construction of knowledge to enable successful undergraduate research within the context of final year research and writing at undergraduate third year (UK), honours (Australia) or senior/fourth year (US and Canada).

Keywords

Undergraduate, research development, dissertation, supervision, academic writing

Introduction: Undergraduate Research, Dissertations and Autonomy

Far from being the role of a few academics and scientists, the pursuit of research is a normal, essential drive that motivates all learners. Research is a focused quest for the discovery, creation and articulation of knowledge and ideas. For researchers, there is a continuum from generation of ideas, through structured, focused hard work, to completion. For undergraduates working with a curriculum, research can take place at all stages of their degree, including early questions and tasks for the dissertation or project. While the postgraduate journey is longer, the undergraduate still experiences their dissertation or project as the biggest, most significant piece of work so far on their learning journey. This article considers research steps in final-year research and writing, in a specific module: 'LL625 Gothic: Texts and Contexts', as well as the dissertation.

Literature Review

Willison (2009, p. 5) cites several papers which recognise the importance of autonomy for research and student researchers, including Boud (1988), Bruce (1995), Butler (1999), and Fazey and Fazey (2001). Development of independence and autonomy in research appear in the Research Skill Development (RSD) framework as 'unbounded' researching, where research is student-developed and directed (Figure 1) (Willison & O'Regan 2006/2018; see the first article in this issue).

Undergraduate research autonomy is both a goal and a staged process. It can be described along a continuum from student engagement with closed inquiries, through to open inquiries involving high levels of autonomy and self-determination. The continuum relates to all elements and stages of the research, encompassing what is investigated, how the research is undertaken, resulting data analysed, findings drawn, and writing completed. Ranging from one side of the RSD framework to the other, questions and the research projects which they inform can be classified as 'closed' (supervisor-initiated, specified) or 'open' (student-specified). This classification relates to the question or hypothesis, research methodology and methods, research vehicles or equipment used, the answer to a research question and the confirmation (or not) of a hypothesis, findings and any plans for further research (Hackling & Fairbrother 1996). Willison's RSD framework built on earlier work (Willison & O'Regan 2005) which links research development stages with autonomy in practice. Rows in the framework correspond 'to the six major student research facets' and 'the movement through these facets is not linear, but recursive' (Willison 2009, p. 5).

While researching as undergraduates, students transit through research cycles, finding new levels of complexity until they begin the final-year assessment and dissertation process. At this point, the depth and sheer enormous size of the task could well be a major challenge. Students can learn from their earlier mistakes, making new decisions to avoid getting stuck, planning ahead and completing their work step by step. Autonomy and creativity emerge partly through reflecting on these steps and making informed decisions. Willison identifies level 5 autonomy ('unbounded research'), which corresponds with Glassick, Huber and Maeroff's (1997) moment of high-level autonomy and creativity, where researchers apply 'standards of rigour and impact' (Glassick, Huber & Maeroff 1997) to construct new knowledge.

In our supervision of student work, we match student research learning and supervise different learners as they transit between the RSD levels at different stages. At each stage, it is important to encourage and enable creativity as well as structure. Beginning with sound, structured agendas and clear working procedures is good, since the research learning journey could/should be messy and

complex. A manageable fine structure needs to be firmly established, like fine silver wire surrounding the developmental, creative soap bubble of students' research work.

RSD and 'Students as Partners'

The RSD framework is a conceptual diagnostic tool that can be used to identify research learning demands, and to map students' development towards autonomy. I see its practical application as exemplifying an effective part of the 'students as partners' movement, its theory and processes, in action. Using the framework in supporting and enabling undergraduate student research is a partnership activity. Dialogue between lecturers/supervisors and students, student-led co-construction of research and assessment output, and the dissertation, are underpinned by the values of 'students as partners'. Like the RSD framework itself, this dialogue and co-construction represent a balance between freedom and autonomy.

In the UK, where my own work largely takes place, there is much *policy* support for this drive towards student autonomy and partnership. Policy driving this development indicates an increasing recognition that students are more than customers. Rather, they are being invited into curriculum development and governance in universities. Canada is also overtly adopting such statements of partnership. Historically, as an example of this UK movement, the Welsh Government's (2013) *Policy statement on higher education* states:

Partnership is about more than just listening to the student voice and enabling students to have input in decisions that affect them. True partnership relies upon an environment where the priorities, content and direction of the learning experience are all set by students and staff in partnership (Welsh Government 2013, p. 21).

Strategies for engaging students as co-researchers include the following: 'Emphasize the construction of knowledge by students rather than the imparting of knowledge by instructors... Ensure that students experience the process of artistic and scientific productivity' (Hattie & Marsh 1996, p. 533). Cook-Sather, Bovill and Felten (2014, p. 100) identify student partnership outcomes:

- engagement – enhancing motivation and learning;
- awareness – developing meta-cognitive awareness and a stronger sense of identity;
- enhancement – improving teaching and the classroom experience.

Engagement outcomes for students involve:

- enhanced confidence, motivation and enthusiasm;
- enhanced engagement in the process, not just the outcomes, of learning;
- enhanced responsibility for, and ownership of, their own learning;
- deepened understanding of, and contributions to, the academic community.

And, importantly, at module level, this deeper understanding relates not just to dissertations and projects (Jenkins 2001). Jenkins proposes the following outcomes for students involved in research:

- Develop student understanding of the role of research in their discipline;
- Develop students' abilities to carry out research in their discipline;
- Manage student experience of staff research (Jenkins 2001).

Healey, Flint and Harrington (2014) link the creative with the structured in focusing on students co-researching as partners:

Subject-based research and inquiry – whether it involves selected students working with staff on research projects or all students on a course engaging in inquiry-based learning, there is much evidence of the effectiveness of this approach in stimulating deep and retained learning. As with active learning, not all ways of engaging students in research and inquiry involve partnership, but there are many examples where students have extensive autonomy and independence and negotiate as partners many of the details of the research and inquiry projects that they undertake (Healey, Flint & Harrington 2014, p. 8).

Where students are co-constructors of research, they experience first-hand the delights, messiness, risks and confidence associated with each stage of the process. They learn how to identify problems and questions, to search a wide range of literature, decide which methods enable them to address their questions, analyse data, and narrow down themes for their own research project. They develop ways to craft writing so that it enables argument, to make a contribution to knowledge using literature, structure, creative and critical thinking, and clear findings.

Methodology and Methods

This article scrutinises practice in the light of the RSD, with my own reflections on the use of the framework to scaffold research learning. To this end, two case studies in research learning in final-year literature study are presented.

A) Focuses on research learning in a final-year module, 'LL625 Gothic: Texts and Contexts' (2017).

B) Focuses on the research learning and supervision journey of Bethany (not her real name), an undergraduate dissertation student (2015) exploring African American women's writing.

The research using student work reported on here had ethical clearance from the University of Brighton. These specific cases represent instances that are similar to many examples that I have observed over several years (four years of the Gothic module, and I have supervised undergraduates for over 20 years). The cases provide a lens through which generic ideas about skill development support can become more focussed. In discussing these cases, I indicate that I see students as co-constructors of knowledge at every step when working with sources, devising their own questions, and working with a lecturer or supervisor in developing their ideas and writing their blogs (case 1) or dissertations (case 2). It is probably more straightforward to see students as co-constructors and partners in scientific examples, because they are involved in the practical experimental and field-work, such as in Mick Healey et al.'s examples (2014; 2016). But in such cases, the question is often given, rather than student-originated. In this sense, students in scientific disciplines may be less independent than those in the humanities.

Introduction to the Two Cases

Research Learning Development in Final-Year Class Work and Assignments

Students engage in research learning at least from the start of undergraduate study and throughout their degrees, ideally developing skill and autonomy. Final-year work is an opportunity to consolidate and further develop skills, moving towards more student-directed, ‘unbounded’ researching (Willison 2009, p. 5; Figure 1 and www.rsd.edu.au). Case A explores third-year research learning on the Gothic module, and case B explores a dissertation.

The Dissertation

The research dissertation is the longest, deepest piece of work an undergraduate student undertakes, and it can feel exhilarating and daunting, like climbing a mountain. Asking hard questions and undertaking very complex research processes is the way to autonomy and achievement. This process requires perspective - managing what is realisable without losing the inspiration and excitement of breakthroughs in thinking and skills development. Supervisors understand that there are constraints on this large-scale plan. The brevity of the undergraduate dissertation and the short amount of allotted completion time for honours theses represent considerable constraints; within these constraints, students face substantial requirements for skill development. The first task is usually to help the student narrow their large-scale aims and scope. Below, I explore a case study involving supervision of a third-year literature student, Bethany, by working with the RSD framework, considering elements of supervisory practice and her development of research skills through the project and dissertation to completion.

Research Developmental Journeys

Margaret Kiley and Gerry Mullins put the PhD into perspective when they said, ‘it’s a PhD, not a Nobel Prize’ (Kiley & Mullins 2002). But in being realistic, we don’t want to squash enthusiasm, and we do want to enable a certain level of autonomy and independence. So, the iterative movement between control and autonomy is essential. There are also many skills to be developed. These include planning the project and managing time; learning to find and critique materials for literary review; theorising (to deepen conceptual exploration and understanding); identifying suitable methodology; and analysing data to draw conclusions. Then, the work must be tied into a well-expressed piece with a central argument, so that it can be shared, and this involves research writing skills. It is also essential that the work does make some contribution to knowledge – perhaps big for the student, small for mankind. The whole journey should enable skills development and learner independence, which will be valuable in future research and employment.

Putting the RSD into Practice

I am not suggesting that I have begun with the RSD in the cases mentioned above, but that I am exploring, theorising and explaining research processes using the RSD framework, and will use it overtly with students to support their work in the future. The main concern here, and as a capstone for the student experience of developing research skills and autonomy, is the project and dissertation. We consider both final-year research learning and assessment, and the dissertation.

In addition to the project and dissertation, there is the issue of the skills learned along the way – planning the project and managing time; learning to find and critique materials for literary review; theorising; capturing the whisper of a sudden developing idea and turning it into an insight; identifying suitable methodology; and analysing data to draw conclusions. Supervisors encourage students' burgeoning awareness of the threshold concepts involved and the undergraduate-level conceptual threshold-crossing. Threshold concepts are disciplinary concepts which inform the learner's view of the world and construction of knowledge, like a historian, or a biologist, or an economist. Meyer and Land (2003; 2005; 2006) identified this way of looking at knowledge construction when considering how undergraduate learning takes place, seeing new perspectives as opening a portal into new understanding and knowledge creation. The breakthrough that occurs when students come to understand threshold concepts enables them to ask questions as historians, biologists, etc., and to construct new knowledge. Supervisors need to be flexible and empathetic, because research learners can become stuck. As the now extensive work with disciplinary threshold concepts has shown us (Flanagan 2018), sometimes 'stuck places' lead to 'liminal spaces', the confused, exciting moments that precede understanding. The existence of these spaces should be recognised and normalised.

Offering students books, sources, resources, skills development and good quality, structured, supportive dialogue, feedback and feedforward (Race 2018) is essential. Structuring should enable rather than stifle or substitute speculation, enquiry, and conceptual threshold crossing. I argue that the RSD offers such a structure. It looks robust, but it is also a delicate scaffolding through which students can move at different levels and different stages in their research. It offers measurement and achievement points. Also, for undergraduates who might not reach the higher levels, it indicates there is more to grasp and move towards in future work. Supervisors and students need to use the RSD to support and enable, rather than constrain, enthusiasm, work and breakthroughs in new learning.

Developing a Research Mindset

Appropriate scaffolding of students' thinking – from prescribed to open-ended approaches – helps build the habit of approaching research tasks at one end, through to developing ideas, questions and practices at the other end. We have to be careful to avoid over-scaffolding, squeezing out riskiness, messiness and creativity, because too much direction and structure might hamper students' critical and creative thinking. So, at each stage, it is important to discuss structure and its usefulness, and to openly discuss ways to approach the research, rather than just direct the student to the next charted step. Dialogue, group discussion and partnership help with this delicate and essential balance.

The RSD framework is a structuring device which, perhaps due to its explicit nature, helps lecturers, supervisors and students develop research skills and independence, and negotiate ways through research-based assignments, the dissertation project and written piece. It helps students become aware of the developmental stages of learning, researching and practice, in addition to and through the steps of the research. The five columns of the RSD (Willison & O'Regan 2006/2018) describe the research journey. Along this journey we should see development, maturity and self-reflection.

The aim of the RSD with which I am concerned is using scaffolding and building independence to enable clear critical thinking. Students develop a research mindset through engagement with content and an increasing awareness of ethical, cultural, social and team (ECST) aspects when

they engage with the levels and move through them. There is no direct correlation or linkage between these cells.

Kind of research	Prescribed researching	Bounded researching	Scaffolded researching	Open-ended researching	Unbounded researching	
Stages in the research process	Embark & Clarify	Find & Generate	Evaluate & Reflect	Organise & Manage	Analyse & Synthesise	Communicate & Apply

Figure 1. Outline of two main parameters of the RSD matrix, which, together, have created (or are responsible for) 30 “cells” in the RSD framework (Willison & O'Regan 2006/2018, www.rsd.edu.au).

The Research Journey

As supervisors and students work together, from the start of the project to its end, I would expect to see the development of self-identified research questions and knowledge gaps, a refreshment and renewal of others’ understanding as well as that of supervisors and students, and self-reflection and self-direction. These push the work over to the right-hand side – to ‘unbounded’ researching, where students determine their research processes, practices and their written expression within the constraints and enablers of the discipline. Here, theories of threshold concepts might be useful in engaging students with ways in which their discipline constructs and expresses knowledge (Meyer & Land 2003; 2005; 2006).

Cell Movement (in the RSD) in Practice

At the start of their research journey, students often present with research ‘questions’ which are actually fascinations and broad topics. Some can be narrowed down. Some can be theorised, as they are likely to result in papers that are merely descriptive. Others are simply too impractical to work, so questioning is needed to discover related interests suitable for research.

The two cases which follow illustrate movement through the RSD cells from initial stages of quite dependent researching through to autonomy, against each of the research facets in the RSD framework. **Case A** involves groupwork, using digital skills and blogs in research and practice in a third-year module on Gothic literature, texts and contexts, and **Case B** involves working with an individual dissertation student, Bethany.

Case (A) Using the Framework with Groupwork and Digital Literacies in a Final-Year Module

Case A concerns research learning in a final-year module, ‘LL625 Gothic: Texts and Contexts’ (2017). The module comprises lectures and seminars with groupwork. The assignments are two online blogs and an essay. One session is devoted to supporting use of the online portfolio for students’ blogs.

I focus on two weeks leading to an assessment question where students produce two 750-word blogs online. These blogs include images, and original contextual and textual research. They form half of students' module assessment. The second half of student assessment involves a 1500-word essay. Class activities and assignments enable students initially working in small groups to engage and extend their digital literacies and other research enquiry skills, such as sourcing, selection, synthesis, analysis, and evaluation. They do this first in a teacher-facilitated groupwork session following a lecture. The lecture uses several digital online sources and explains research processes linking text and context (including details of history, location and source).

In week one, we concentrate on Whitechapel as a location and *Dr Jekyll and Mr Hyde* (Stevenson 2004) as a text. In week two, we focus on Whitechapel, Whitby and Transylvania as locations and *Dracula* (Stoker 1979) and its film versions as text. Lectures are captured in advance or on the day as podcasts so that students can access them in their own time. PowerPoints, extracts and full-text articles are uploaded to the virtual learning environment (VLE). Contexts for the *Dracula* lecture include the history of Transylvania, the real Vlad the Impaler and Elizabeth Báthory, all of which establish research that was conducted and then transformed into literature by Stoker. I present students with maps and images sourced online, from the *Dracula* society website and other sites shown, a breadth of scholarship indicated in both the lecture and scholarly sites. The lecture revisits ways in which the Gothic, in addition to being entertaining, acts as a weathervane of current fears and confusions. The Gothic is a form which undercuts complacencies, exposes and critiques value systems of particular moments and contexts, as well as enduring concerns, for instance, about identity, life, death, commodification, and human kindness. Interestingly, *Dracula* plays on two fears of the period: immigration, and women's increasing positions of power, as the 1890s was the period of the 'new woman', with some women gaining degrees and entering professions, some urging political equality, and some seeking sexual freedoms. Artworks which I show (*Idols of Perversity*, Djikstra 1986) indicate terror and disgust at women's disruptive powers. *Dracula* enacts overwhelming patriarchal power, and demonising of sexually active women by portraying them as vampires feeding on infants, dominating men, or weak and vulnerable, ripe to be turned. Dracula the vampire is a threat to the purity of women and heredity in a land focused on space, ownership and inheritance. He is also an invading, duplicitous, metamorphosing foreigner entering the UK to buy up land in London and move in his vampire hordes. In current historical moments, the invasive hordes of Dracula, his family and followers seem to represent fears of immigration, which might explain why *Dracula* as text and film, comic book and other popular cultural forms, never dies out of our interest. It is a vehicle for essential fears over gender, sexuality, ownership, identity, inheritance, land, immigration and the foreign other. Linda Friday, PhD candidate at Edge Hill, enabled me to use her digital research into the maps of Whitechapel coincident with *Dracula* and Jack the Ripper. These, plus local newspapers, indicate that in the novel, coffins filled with Dracula's vampire wives were to be delivered into the heart of London, in areas with a reputation for crime and murder, where contemporary social media, cartoons, pictures and newspaper articles demonised Jewish settlers. Maps, newspapers, historical research and contemporary issues combine to explain why this text took hold of public interest then, and why it maintains this interest now.

Friday's research was conducted online in digital archives. In the seminar, students are invited to 'switch it on', linking online research with readings in the novel, exploring in groups using iPads provided and their own smartphones, sharing tasks and reporting back. They look up Gothic terms (e.g., 'uncanny'), find versions of the term, and use these to theorise short passages. This sourcing develops autonomy. Students present their groupwork using digital sources, in the seminars. Comments and discussion act as formative feedback in advance of uploading assessment

responses online. Students express their appreciation of Gothic texts and their related fears, desires, and disgust. They discuss the link to contemporary sources and texts, and how these influenced locations, authors, histories, social media, and are also contemporary. When discussing teaching H. P. Lovecraft and Neil Gaiman on this module, I commented:

One of the aims or learning outcomes of all of this is to bring and keep texts alive, to encourage personal engagement and the imagination, valorising the importance of the imagination, storytelling and living with the dimension of the imaginary as well as the real and to move beyond the shivering fun of entertainment without losing it. Another is to enable us all to see that in our interactions with the history, context, sources, influences, critical dialogues, and the text through research, reading and discussion, we are co-constructing knowledge, making something new (Wisker 2016, pp. 23-43).

Part of what is so new is the digital, which enables students to engage with and make something new of serious issues dealt with through Gothic horror. Speaking at the London Book Fair, Gaiman explains the riskiness, challenge and opportunities of working with the digital:

the whole point of a digital frontier right now is that it's a frontier, all the old rules are falling apart... When the rules are gone you can make up your own rules. You can fail... and you can succeed in ways nobody would have thought of, because you're pushing through a door marked no entrance... (Gaiman 2013).

In the seminars, students engage with structured and bounded research practices which develop into opportunities to synthesise, then communicate. When using digital research, engaging with texts and their own interpretations, they conduct more open-ended research in terms of three of the research facets, learning to *organise & manage, analyse & synthesise*, and, through blogs, to *communicate & apply* their critical creative work. The 2017 module mid-term blogs for assessment are truly impressive examples of developed research skills, digital sourcing and expression, and newly constructed knowledge and argument. Work was assessed against established criteria, co-marked, and moderated by an external examiner.

Relating RSD to 'Students as Partners': Case A

Theories of 'students as partners' explain how we can gradually enable students to take the lead in understanding the discipline, its forms of research, and expressions of that work. These theories are put in practice by lecturers, beginning with the structuring of helpful models and discussion, clarifying often opaquely-worded assignments and activities full of constraints or seemingly directionless freedoms (Healey, Flint & Harrington 2014; 2016). Together, students and lecturers develop an understanding of these expectations in practice. They develop routes through the research process, which gradually empowers the students to ask questions, make decisions, regulate their time and research practices, check expression, and ask further questions, testing expectations. During seminars, students in this module work in groups. A balance between structure and exploration is enabled through the seminar activities, so that even those who struggle with autonomy are supported through clarity of expectations, modelling and moments of understanding. Models and examples help students on their journey from the left-hand side of the

RSD framework ('prescribed' and tightly reined) towards increasing autonomy at the right-hand side ('unbounded research', managed effectively and expressed within discipline expectations).

Using the RSD Framework with Dissertation Supervision

Some students might need more support in structuring their research and writing their dissertation. The RSD framework allows students to move from managed support in more limited stages and tasks, being clear about their aims and outcomes, and the necessary skill development and practice, through to empowerment or 'unbounded' researching. Not every student works at the same pace or needs the same kind of structure and support in this partnership; the process needs to be responsive, flexible and sensitive. The supportive research process - students' engagement with supervisors and other support structures (including internet, technical support, librarians and other students) - moves from more managed to entirely open. Creativity and flexibility can and do occur at every stage, even where large amounts of scaffolding are in use. The student journeys through stages of the research process from *embark & clarify*, to *communicate & apply*, making the research their own, enabling them to present and share something they feel comfortable and confident about.

Skills support can be useful at each step, but some steps and stages are less familiar and more troublesome for some students than others. So, what seems a straightforward trajectory from 'prescribed' to 'unbounded' research, from embarking to applying, might, for some students, be messier than a clear, stepped process. The process is actually iterative, with returns to new understandings of earlier steps and rejections of any poor habits developed along the way. Supervisors and the community of researchers need to be alert, ready to nudge students forward with clarification, and celebrate achievements with the student. The stages students go through in research and dissertation writing frequently move from creative ideas, problem-solving ideas, through the research processes, finally identifying and constructing both factual and conceptual conclusions. Importantly, when working with 'students as partners', we are supporting co-construction and ensuring that they are becoming more confident, fluent and clear in their writing, communicating and sharing their work at every stage.

Issues involving undergraduate research supervision receive less attention than those involving postgraduate supervision, so here I adapt postgraduate supervision-focused work to consider the enabling and structuring practices of supervision, with undergraduates undertaking their research and writing their third-year dissertations (UK model), honours (Australian model), capstones or senior theses completed in the fourth, senior year (US and Canada). I suggest that each student requires a sensitive structuring and supportive development process, so the supervision process, the student's development as a researcher and of their research project are experiences enriched by a mixture of freedom and structure. In doing this I am combining the Research Skills Development framework (Willison & O'Regan 2006/2018), my own work on supervision of undergraduate and postgraduate students (Wisker 2005; 2008; 2018), and recent work on 'students as partners' (Healey, Flint & Harrington 2015), previously discussed as 'co-researchers' in my *Undergraduate Research Handbook* (Wisker 2018).

Reflective Activity

Structuring frameworks only come to life if we consider real cases. If we consider the needs of students early in their research careers (e.g., as first-year students embarking on early research as part of an in-class activity), the left-hand side of the RSD framework seems appropriate. This side of the framework involves 'prescribed' researching, directed questions and structured approaches.

This is part of training, although students should have freedom in their choice of topics and approaches if this is a small research activity, since, while frameworks and staged processes scaffold and teach, they can, if over-imposed, close down the necessary development of ideas generation, problem-identification and solving, which accompany all research. Perhaps modelling and discussion of the appropriateness of models is useful at this stage, which takes us from 'prescribed research' into the next autonomy strands of 'bounded' and 'scaffolded' research.

Undergraduate dissertations enable students to consciously develop practices and skills moving further towards the right-hand side of the RSD matrix, from 'scaffolded' to 'open-ended' and 'unbounded' researching. Even PhD students and undergraduate creative writing students require boundaries and scaffolding, and even those PhDs and creative undergraduate dissertations with an element of creative writing or performance rely on scaffolding. The standard dissertation structure mediates between the need for order and the student's creativity, allowing students to express themselves in a manner communicable to others, in a shape which still adheres to that expected within the assessment. Scaffolding and structuring are enablers, not crushers. The research student developing their work as partnership will need to also develop the art of exploration, communication and negotiation, to identify, negotiate and construct their research journey and their new knowledge, either in scientific contexts or fashion design, making the most of the support available without crushing that originality, harnessing without killing the energies which lead to new knowledge and meaning creation. It is the supervisor's role to accompany and nudge the student along the path of clarification, energising creativity and originality, negotiated outcomes and communication, to help them push from the left to the right of the RSD diagram. How far each student can each actually go will depend on their discipline and its rules (Meyer & Land 2003; 2005), the student's own levels of risk-taking, and the nature of creativity involved in their project. Some of the most creative projects are some of the most bounded, where the newness arises from the tight framework, as in the case of writing new poetry in a strict form, such as a sonnet. Some of the loosest and most unbounded projects can be merely chaotic. Our job as supervisors is to work in a partnership with students within the constraints, as enablers of the level, stage and the university rules and regulations, to negotiate the way to the point where students exercise enough creativity which is structured and enabled to communicate the new knowledge and new understanding in the student research.

Case Study (B) Bethany: Narrowing, Focusing and Guiding the Research Dissertation

One early November (UK first semester) I received an email from a final-year student beginning to think about her dissertation:

Bethany: 'I really enjoyed your lecture on Alice Walker so I thought I'd like to do my dissertation on African American writing.'

G: 'Thank you. I'm really pleased; that's an interesting area – which writers, which issues interest you?'

Bethany: 'Oh, I think I'll look at Alice Walker, Toni Morrison, Ntozake Shange, because she does plays, go back to the early poets from the 18th century and then the slave narratives, and come up to date with some rap and hip hop lyrics.'

G: (pause) ‘That might be a bit wide. I suggest you narrow it to make it manageable for you. Can you think of an issue or theme which interests you, like self-expression (narratives, searches for identity and voice, different kinds of oral-based writing?) and perhaps two or three writers or texts? (*embark & clarify*) How does that sound? It might make it more manageable (‘bounded research’). Have a look at bell hooks’ *Ain’t I a Woman* (1981) for some background and maybe *Teaching African American Women’s Writing* (Wisker 2010) for some essays dealing with different writers. This might help you narrow it, (‘prescribed research’) and so you can then go in depth in what you have chosen’ (*find & generate*).

This first experience is enacting:

Prescribed researching	Embark & Clarify
Bounded researching	Find & Generate

After some toing and froing and a meeting, Bethany looked at a particular issue in the work of two writers spanning 30 years.

This initial work of narrowing the student’s scope was an example of ‘scaffolded’ researching. To some extent, it helped to move her on, offering areas of reading from which she could explore and choose authors, texts and themes. If the work was not narrowed at this point, I felt she would soon have become overwhelmed by detail and struggled to differentiate authors, works, periods and issues. This would hamper her ability to ask questions (*evaluate & reflect*) and focus in a theorised way, incorporating work by authors of critical texts, to help her say something new and profound.

During developmental discussions, we worked together in sourcing materials and shaping her argument. After approval of the research topic and title in November by both myself and the dissertation committee, the first draft chapter had to be submitted near the end of the first semester (December). Following my comments about narrowing, focus, referencing and argument, Bethany took more control (‘open-ended research’; *organise & manage*). We met twice more at agreed times and exchanged text with feedback comments by email.

This process represents examples of:

Scaffolded researching	Evaluate & Reflect
Open-ended researching	Organise & Manage

She carried out much of her own identified research, based initially on recommended reading, and explored both the online library and web searches. The next stages in the scaffolded development are:

Unbounded researching	Analyse & Synthesise
Self-initiated researching	Communicate & Apply

Bethany's work was in literature, and literary criticism demands that we *analyse & synthesise* from literary texts, other critical texts and theorists whose work informs those texts, as well as incorporating our own critical exploration, reading and bringing together of sources and arguments on those texts. Her application of literary critical exploration, engagement with the text, and exploration of her own ideas and arguments was also evident (limited – 'unbounded' researching). Bethany's work demonstrated communication, since it was well-structured, well-argued, and readable (*communicate & apply*). As far as I can tell from supervision discussions, excerpts of work in progress, questions and thoughts exchanged through email, I cannot say that there were any extended examples of 'unbounded' researching. Perhaps some web searches might be counted, but these were still guided by a focus on the dissertation topic, time and topic-constrained exploration, trial and error. Breakthroughs or conceptual threshold crossings are more possible in the longer liminal period of a master's dissertation and PhD.

Conclusion: Enabling Structures

With undergraduate dissertations, the structure afforded by making steps, stages, outcomes and processes explicit should accompany the energy of discovery and enable the dissertation to take shape. I think of the undergraduate dissertation, the imaginative exploration and originality, the ideas and excitement, and the planning and managing processes that enable this, as resembling that soap bubble carefully encased in silver wire. One survives because of the other; nothing is crushed.

As lecturers and supervisors, our task is to enable this delicate, tautly-structured process to support students' ideas and practices. This involves making steps manageable. The steps include exploration, planning, achievement, learning from mistakes, reflection on and awareness of what works and doesn't, what is being learned and what needs to be rerouted. Research projects stop and start. Iterative processes of returning to the research question, data, findings and writing to hone and perfect are all part of the learning journey. Like the dissertation framework structure, we are supportive in systematic and identifiable ways. This entails regular meetings, clear indications of routes, feedback and feedforward, and being responsive and proactive with different students and different projects, to match different needs. We help students to maintain momentum and to produce planned, managed, articulated work. I don't see any contradiction in this, and the RSD framework should help structure this process rather than constrain and mechanise it. The scaffold, the silver mesh, like the nurturing and provoking supervisor, offers both security and the opportunity to do something daring in a managed environment. They also support the student's ability to realise what they are achieving, how far they have developed and what they need to do next to move on. This partnership-based, scaffolded, creative process perhaps emerges from chaos but takes shape in well-written work, and in the student's knowledge of their own limitations, developed skills, potential and agency.

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