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Beating the Bamboozle: Literacy Pedagogy Design and the Technicality of SFL

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Abstract: This paper explores the issue of metalanguage and writing instruction in the senior secondary curriculum. It reports on the use of a design based research collaboration between a very experienced teacher of Ancient History and a research team with the aim of improving literacy outcomes for a group of disadvantaged students. The case highlights some of the challenges implicated in this close work between educational linguistic theorists as language specialists and classroom practitioners as subject specialists. In particular, it raises the issue of how to provide already experienced teachers with a metalanguage to express their implicit knowledge about text more effectively in the classroom. It demonstrates both the struggles involved and the positive impact of making texts more visible, and reveals the benefits of a focus on explicit teaching of writing. It also raises some implications for future in- and pre-service teacher education.

Introduction

In commentary on education, literacy is never far from the public eye. Reports about stagnant or falling literacy standards have been common in the Australian media for some time (Donnelly, 2017; McDonald, 2010; Munro, 2016), to the point where ‘controversy over literacy has become a permanent fixture of educational debate and policy’ (Green, Hodgens, & Luke, 1997, p. 7). Since the late 1970s in Australia, the field of literacy has also been a vibrant site of educational research, informed to a large extent by developments within educational linguistics and through partnerships between researchers and educators. Changes in curriculum and policy over the past several years have intensified an already strong focus on literacy development in schools and made systematic research into literacy pedagogy even more urgent.

The advent of the national curriculum in Australia has been one contributing factor to a renewed focus on literacy development in education. In particular, the Australian Curriculum English (ACARA, 2013) has strengthened the place of an explicit focus on language in teaching. Students now *learn about* as well as *learn through* English, with the inclusion of language as an object of study. In the Australian Curriculum English (AC:E), language, glossed as ‘knowing about the English language’ (ACARA, 2013, p. 5) forms one of the three interrelated strands of the curriculum alongside literature and literacy. An explicit focus on language is not just the purview of the English curriculum. Literacy is included as a ‘general capability’ in all the Australian curriculum documents in all key learning areas (KLAs) and the curriculum guidelines assert not only that ‘all teachers are responsible for teaching the subject-specific literacy of their learning areas’ but also that ‘all teachers need a clear understanding of the literacy demands and opportunities of their learning areas’ (ACARA, 2017, p. 1). There is therefore now a stronger emphasis on explicit

talk about language in all subjects in Australian secondary schools, through the inclusion of language as an object of study in the AC:E and the inclusion of literacy as a general capability across all subjects.

Recent policy has also brought the notion of strengthening literacy standards into the spotlight. The recent Literacy and Numeracy Strategy 2017-2020 in New South Wales (Department of Education and Communities, 2016) calls for a 'relentless focus on explicit teaching and high expectations for all students across all sectors' (p. 2). Under this strategy, several new measures have been put into place, including requiring students to meet new minimum literacy and numeracy standards in order to be eligible for the Higher School Certificate (HSC). Teacher education students are now required 'to pass a literacy and numeracy test prior to their final year professional experience placement' (Department of Education and Communities, 2016, p. 10) and more professional learning support has been promised to teachers in both assessing and teaching literacy.

Alongside the apparent urgency of these calls for improved literacy standards, and the promise of more support in the form of professional development, many teachers still feel underequipped to teach literacy (Fang, 2012; Hannant & Jetnikoff, 2015; Moje, 2007; Schleppegrell, 2004) or lack a sufficient metalanguage to be able to do so (Humphrey & Macnaught, 2016b). There is pressure from a crowded curriculum and limited time in which to teach it, such that writing instruction may not be prioritised in the disciplines, even from the middle years of schooling onwards (Hannant & Jetnikoff, 2015). In senior high school years, teachers may even perceive the teaching of literacy as a distraction from what can be understood as the main task of teaching subject content (Veel, 2006). There appears to be a disjunction between the assertion in policy that teachers must teach literacy explicitly, and the resourcing and equipping of teachers to do so with confidence.

Against this backdrop, applied linguists, often inspired by Bernsteinian sociology of education (Bernstein, 2000), have been conducting research into literacy pedagogy. Beginning in the 1970s, research began into making more visible what had up until then been implicit knowledge about the writing requirements of success in school (Painter & Martin, 1986; Rothery & Gerot, 1986; Wignell, 1987). This work has continued to the present day, encompassing research in primary and secondary school literacy (Martin & Rose, 2008; Rose & Martin, 2012) literacy beyond school contexts (Iedema, White, De Silva Joyce, Feez, & Write-it-Right Project, 2008; Veel, 2006), research into the disciplinary literacies of particular subjects such as Mathematics (Veel, 1999), Science (Morgan, 2013; Veel, 1993) Geography (Humphrey, 1996), History (Coffin, 2006; Matruglio, 2016), Music (Weekes, 2014), Business Studies (Weekes, 2014), Legal Studies (Kompara-Tosio, 2014), Society and Culture (Matruglio, 2014) and Community and Family Studies (Matruglio, 2014). Importantly, research has also been conducted into literacy pedagogies to close the achievement gap between lower performing and high performing students (Rose & Acevedo, 2006; Rose & Martin, 2012). A characterising feature of a great majority of this research has been collaboration between teachers and applied linguists in the investigation of a common 'problem' or research goal. These collaborations between researchers and practitioners have presented both rich opportunities for reciprocal learning and also challenges to be overcome if sustained change and substantial impact is to be achieved.

One such challenge has been the challenge of metalanguage. As noted above, there has recently been a strong focus on the explicit teaching of literacy across all key learning areas. In order to teach language explicitly, teachers and students need a language to talk about language. This has made more urgent the question of how to make knowledge about language more accessible to teachers, and to investigate how it might be included in teacher education programs. Systemic Functional Linguistics (SFL) has an extravagant metalanguage which has the advantage of being functional in nature. It describes language as it is actually

used and is beneficial in making the link between meanings and wordings clear (Moore & Schleppegrell, 2014; Rose & Martin, 2012). However, part of the benefit of SFL, namely its very large and detailed architecture, is also part of the problem in making it accessible to teachers and students. The question of how much of SFL's vast array of language description is necessary for teachers and students remains a problematic one.

Projects such as the Grammaticals Project (Macken-Horarik, Love, & Unsworth, 2011; Newbiggin et al., 2013), the ELK (Embedded Literacy in the KLAs) Project (Humphrey & Macnaught, 2016b; Humphrey & Robinson, 2012), the MELK (Metalanguage for Embedding Literacies in the KLAs) Project (Humphrey & Macnaught, 2016a) and the Secondary Literacy Improvement Project (SLIP) (Cann, Inglis, Dalmau, & Gregory, 2013) are making important contributions to the understanding of what knowledge about language (KAL) is important for teachers and how this may be developed in the Australian schools context. Importantly, these projects all involve teacher professional development in the area of linguistic metalanguage through 'elbow-to-elbow' work between teachers and researchers. Such research facilitates a sharing of expertise and the development of a common understanding of educational issues between researchers and practitioners. Work is also ongoing in the development of literacy pedagogical content knowledge (LPCK) in teacher preparation programs (Love, 2009, 2010). In both the pre-service and in-service teacher education spheres, factors such as limited time for teaching language in crowded curricula (Love, 2009, 2010) and the question of how much of the technical understanding possessed by educational linguists is necessary for teachers (Macken-Horarik et al., 2011) are central for teachers and researchers alike.

This paper makes one contribution to the discussion concerning this issue. It explores the results of one case where a teacher and researchers came together to work on the common 'problem' of literacy development with senior students in a crowded curriculum. In particular, the research reported on here aimed to implement an explicit pedagogy for assisting students to develop better control of disciplinary ways of writing so they could display their knowledge in high-stakes examinations.

The research site was ideally placed for joint research between teachers and academics in the area of writing development. The school had a very high degree of students with English as an additional language or dialect (EAL/D) or who were from a non-English speaking background (LBOTE), and the school was pursuing a school-wide focus on literacy development. The teacher involved in the research, a highly experienced teacher of History, expressed frustration that these students, who knew their subject content well, nevertheless failed to perform to expectations in examination. She felt this was largely to their lack of ability in writing. She was therefore eager to engage with the researchers, as she believed we had something valuable to offer. In turn, the research team was motivated by the possibility of providing the teacher with linguistic tools which would explicate clearer communication of her expert disciplinary knowledge about writing to students. Despite this alignment of interests and purposes, however, there were significant issues that needed to be overcome in the conduct of the project, especially around the issue of metalanguage. The negotiation of these issues, and the lessons researchers in educational linguistics and teacher education more broadly can draw from them, will be the focus of the remainder of this paper.

Research Design: Systemic Functional Linguistic-Inspired Design Based Research

The case presented in this paper is drawn from a large, two phased, design-based research project¹ which took place across 6 schools and over the period of 3 years from 2009 to 2012. For the purposes of this paper, discussion will focus on the implementation of a design-based research intervention with one of the teachers from the larger project. This intervention involved researchers working closely with an extremely experienced senior secondary teacher of Ancient History, who we will call here Anna², to design pedagogy for teaching disciplinary ways of writing. Anna has over 30 years' experience teaching Ancient History in a disadvantaged school with a very high proportion of students who are second-language English speakers. The first phase of the research involved observation and video-recording of a connected series of lessons and the collection of associated teaching materials and writing samples from the students. This phase was intended to give researchers an understanding of disciplinary ways of making meaning in the subject of Ancient History. Of particular interest was how students built disciplinary knowledge cumulatively over time. Results from this first phase of research revealed that while students were good at expressing their historical knowledge orally, they needed to develop skills in 're-packing' knowledge into the more written-like, technical, abstract, condensed forms needed for written examinations (Maton, 2013). The second phase therefore used the findings from the first to implement design-based literacy interventions aimed at improving cumulative learning and teaching (Freebody, 2013; Macnaught, Maton, Martin, & Matruglio, 2013; Maton, 2013) and in particular, the writing of the valued genres in History (Coffin, 2006; Rose & Martin, 2012).

Design-based research (DBR) was chosen as the methodology to inform the literacy interventions because of its usefulness in collaborative educational research. DBR is designed to solve practical problems situated in real-world contexts while also drawing on high-level theory (Anderson & Shattuck, 2012; Morgan, 2013). This means that interventions are not trial and error affairs, but are carefully engineered on a theoretical basis. While DBR gains its rigour from its strong theoretical basis, it is designed to ensure a strong connection between research and practice and aims at bringing about sustained change in pedagogic practice (Anderson & Shattuck, 2012; Brown, Taylor, & Ponambalum, 2016; Hannant & Jetnikoff, 2015). To this end, it encourages collaboration between researchers and practitioners and is iterative, enabling evaluation, redesign and reimplementing of intervention in cycles (Anderson & Shattuck, 2012; Morgan, 2013). In short, it is a research method which can be used in teacher education to make educational research more accessible to teachers, and therefore more likely to have an impact on pedagogic practice.

Because DBR is theoretically motivated, the choice of theory underpinning an educational intervention is critical. As mentioned above, the educational 'problem' motivating this research was the need for students to develop better control of disciplinary ways of writing so they could display their knowledge in high-stakes examinations. In order to make the requirements of writing visible for students, a metalanguage, that is a language to talk about language, is necessary (Humphrey & Macnaught, 2016b). It has been argued that SFL provides a metalanguage which is useful to teach disciplinary ways of re-packing

¹ ARC Development Project Grant Number DP0988123, *Disciplinary, Knowledge and Schooling: analysing and improving integrated, cumulative learning in classrooms* project was a two phase interdisciplinary study investigating disciplinary and knowledge building, funded by the Australian Research Council with Chief Investigators Professor Peter Freebody, Professor J.R. Martin and Dr Karl Maton. Erika Matruglio and Lucy Macnaught were research associates.

² A pseudonym to protect the anonymity of the research participant

knowledge for high stakes writing (Love, 2010; Macken-Horarik & Morgan, 2011; Martin, 2013; Maton, 2013; Schleppegrell, 2004) due to the strong connection between function or *meanings* and form or *wordings* in SFL. The DBR was therefore designed based on a systemic functional model of language. Integral to this design was the knowledge that SFL would likely be unfamiliar to Anna and that the research team would have to take care to select only what knowledge was necessary and to provide adequate training and support where linguistic knowledge was concerned.

This paper reports on both the training and the process of implementing the SFL-based DBR in Anna's senior Ancient History classroom. It highlights some of the challenges implicated in this close work between educational linguistic theorists as language specialists and classroom practitioners as subject specialists. In particular, it highlights the issues at stake for literacy pedagogy design when teachers are reluctant to engage with the technicality of SFL's metalanguage. It demonstrates both the struggles involved and the positive impact of making texts more visible, and reveals the benefits of a focus on explicit teaching of writing. In the final section, some implications for future in- and pre-service teacher education will be raised.

Results and Analysis: The Challenge of Metalanguage

The research design involved direct instruction in writing based around the genre-based teaching and learning cycle (Rothery, 1994). Intervention cycles were designed so that students would learn about writing in Ancient History through explicit talk about language, the modelling and deconstruction of exemplar texts, and teacher-led joint writing with students. Previous educational research has demonstrated such approaches to be highly successful in developing students' writing abilities (Rose & Acevedo, 2006 ; Rose & Martin, 2012, 2013). Explicit talk about language in the classroom was to be facilitated through the use of an SFL-inspired metalanguage, which was carefully chosen and adapted for use in the classroom. For example, words that could be understood from an SFL perspective as either technical and specialised language (Martin, 1993b; Martin, Maton, & Matruggio, 2010) were glossed as 'power words' and features like nominalisation and cause in the clause (Martin, 1993a) were taught and grouped together under the gloss 'power grammar'. This type of 'bridging metalanguage' (Humphrey & Sharpe, 2015) is commonly used in collaborative research between SF linguists and classroom teachers, where the aim is to interpret the technicality of SFL to make it more accessible to teachers and students (Derewianka & Jones, 2010; Humphrey & Macnaught, 2016a, 2016b; Macken-Horarik, 2012). An important benefit of DBR is the sharing of expertise between researcher and practitioner, and it was hoped that through the project, the researchers could provide Anna with a metalanguage to enable her to talk more explicitly about what she already implicitly knew about good writing in History.

In order to provide as much support as possible, a pre-intervention whole-day training program was conducted to provide Anna (and the teachers involved from other participating schools) with explicit linguistic knowledge about the important genres in Ancient History and training in the genre-based teaching and learning cycle (Martin, 2013). However, it quickly became apparent during the day that there was developing tension between the team's assertion that some technicality from SFL was needed to make disciplinary writing visible and Anna's insistence that this technicality was not needed, and more, that it was confusing and confronting. The intricacies of this clash taught us much about what mattered and what didn't in designing pedagogy for improved literacy outcomes.

Initially, functional labelling of genre types and their stages was used, because the structure and purposes of 'essays' can vary dramatically not only across subjects but also

within subjects in the senior years (Christie & Derewianka, 2008; Coffin, 2006; Matruglio, 2014; Rose & Martin, 2012). Functional labelling was intended to enable explicit talk about differential demands of questions requiring explanation or argument and the resulting differences in essay types. For example, factorial explanation has been identified as an important genre for explaining in History (Coffin, 2006; Matruglio, 2014; Rose & Martin, 2012). This type of text explains the multiple factors which lead to a particular outcome and has the stages of *Phenomenon: outcome*, where the outcome is outlined, followed by the *Explanation: factors*, where the multiple causes of the outcome are explained. In senior years of schooling, these types of explanation text often have a third stage evaluating or explaining the significance of the outcome caused, and/or the significance of the factors which led up to it. Exposition has also been identified as an important text in history (Coffin, 2006; Rose & Martin, 2012). This type of text has the purpose of arguing for a particular point of view, and has the stages of *Thesis*, where the point which will be argued is identified and the arguments are previewed, followed by the stage *Arguments*, where the arguments to support the thesis are presented in a series of paragraphs, followed by the *Reiteration of Thesis* stage, where the thesis is re-stated and the text is drawn to a conclusion.

Both these genres were identified in the first phase of the research as being important in Anna's Ancient History classroom. In order to improve students' abilities in writing them, the team felt it would be beneficial for both teacher and students to have the language tools to talk about the differences in both rhetorical purpose and structure in these types of texts. The difference in social purpose between explaining and arguing, for example, leads to differences in the way the text orients the reader and the types of content and language which are used in various sections of the text. That is, while both genres do have what could be called an 'introduction' a 'body' and a 'conclusion', the function of these sections differs according to genre. Functional labelling of genres and their stages can help move discussion and modelling of these types of genres away from a generic understanding of the 'essay' as a homogenous unit and enable distinctions to be made between the various purposes of extended writing in the senior school context.

Anna, however, resisted the functional terminology strenuously, preferring 'introduction, body, conclusion', and becoming increasingly agitated during the training. She later explained in interview that she 'was bamboozled by the language that Erika and the team used' and that 'the technical language was like jargon to [her]'. At one point Anna became very upset and expressed a desire to pull out of the project, explaining later:

The language made me feel very stupid and sapped my confidence to get involved in the project. My students are my first priority and extremely important to me. I was not going to put them through the anxiety that the language caused me.

Despite this rocky beginning, Anna was persuaded that the project team respected her experience and was committed to helping her communicate her understanding of good writing in her subject to students. If she was uncomfortable with the functional labels for the genres and their stages, she could use other language to make clear the link between structure, purpose and meaning in writing. We stressed the importance of explicit talk about language and modelling of the writing process, regardless of the terminology used, and Anna was persuaded to stay in the project.

During the intervention, Anna did spend a lot of time talking explicitly about writing to her students, and modelling the writing process through writing collaboratively with her class. Her classroom talk indicated a broad range of sources for her metalanguage. At the level of lexis, for example, technical or specialised words were referred to as 'terms and concepts', following the History syllabus (NSW Board of Studies, 2004). She explained to

the class that these are ‘words that we use in history that maybe they’re not using in maths as much’.

Now terms and concepts are just the words that we use every day in History, but they relate to History. So if we’re going to talk today about mummies and mummification, mummification is a term that we use in History all the time don’t we. That’s a term. Okay a concept is an idea about something. So if we were talking about democracy, okay that’s a concept, so we have terms and concepts and we’ll look at those.

When it came to language to talk about the genre of writing, Anna assiduously avoided functional naming of genres and their stages. ‘Introduction, body, conclusion’ were used to talk about the stages of whole text, language which has been common in schools for years. When it came to social purpose of texts, Anna used commonsense language. Rather than labelling a particular piece of extended writing as a factorial explanation, or even simply an explanation, for example, Anna calls it a ‘how’ question as illustrated in this excerpt from the transcript of one of her lessons. ‘Have a look at it and look at our question. Again it’s a how, it’s a how question. How are human remains preserved?’ At the level of discussing paragraph structure, Anna uses ‘the hamburger model’, introduced into the school during previous generic literacy training, and also makes reference to ‘opening sentences’ or ‘lead sentences’. In correspondence with the project team, Anna wrote that she could ‘achieve the same results with discussing the writing process with students – aim, purpose, challenge in the question demands, sentence construction and grammar, without using the technical language’.

Her approach suggests that the benefits of the intervention lay in the explicit focus on text and a functional approach in modelling how to go about the process of writing and not in the specifics of the metalanguage used. In other words, what was important was that there was explicit talk about language occurring in the classroom and that students were apprenticed in to the process of crafting writing through teacher-led joint writing. Video-recorded observations of jointly constructed writing sessions demonstrated much productive and explicit negotiation around how to use language to make the types of meanings the students wanted to make. By the third session in particular, students were volunteering more changes to sentence structure during the joint writing sessions, displaying their understanding of the crafted nature of writing. Students’ independent writing after the third joint writing session also showed marked improvement in organisation, technical lexis and effectiveness when compared to their writing produced in the pre-test which was administered before the design-based intervention. Anna commented in interview that students showed development in the way they were initiating their own talk about language, not just in response to teacher questioning.

That was just so apparent yesterday when they picked up that I started in present tense. Um, you know, and that’s real evidence that they’re not just looking at, they’re not just looking at the structure, they’re looking at the specifics that you put into it, you know, the power grammar and the power words, and um. Also, trying to make the sentences interesting.

Further evidence that it was the focus on explicitly teaching students how to write which was having an impact in this class came from Anna’s written and oral feedback on the project. Anna explained that she felt like she had never been taught how to actually teach writing in her teacher preparation courses, and that the project helped her see how she could demystify the process of writing for students. She especially valued joint construction of text as a way to move beyond just providing models of a *product* to being able to lead students through the *process* of writing.

I had learned how to teach reading but I'd never learned how to teach writing. Never, at all... I always thought about reading. I don't know that I'd ever really concentrated on writing. I would correct writing. I would always teach a lesson in year 11 or two on essay writing, but kinda just jumping in. 'Ok this is how to write an essay' and then always give them an essay to write. But never breaking it down. Never modelling it together. So for me, it's made me very conscious of that area.

Anna was so convinced of the effectiveness of the explicit teaching of writing through joint writing with a class that she expressed the desire not only to keep applying the tools she had learned in the project to her own teaching across more year levels, but also to train her faculty staff in the joint construction of writing.

Discussion and Conclusions: Into the Future: Teaching how to Write

The case reported on here shows that researchers and teachers have much to learn from each other in the conduct of design-based research, and that DBR can yield surprising and unexpected results. While the research team began with the intention of gently introducing an experienced teacher to some technicality from SFL, limited in the main to functional labelling of genres and their stages, even our 'gentle introduction' was perceived as unsettling and 'bamboozling' by the participating teacher. Careful negotiation around the issue of metalanguage was required to prevent the research from coming to an abrupt halt in this research site. DBR's iterative and reflective nature enables researchers and research participants to 'respond to emergent features of the setting' (The Design-Based Research Collective, 2003, p. 6) and so enabled flexibility around this unexpected issue. In the end, while the teacher did not take up a more technical SFL-inspired metalanguage as we had hoped, she did begin to expand on her own metalanguage to talk about text with her students. Her personal metalanguage drew on the syllabus, commonsense language and her own glosses and adaptations of some of the technicality we were trying to introduce (e.g. 'how' questions rather than 'explanations') as she and her class began to build up new shared understandings of language and of writing.

While metalanguage was a salient problematic issue in the intervention, the introduction of a genre-based teaching and learning cycle was not. In fact, both teacher and students found the process of deconstruction followed by joint construction and then independent construction of text useful. Perhaps this was due to the suggestion made elsewhere and supported by this teacher that the process of writing is not generally taught in schools (Hannant & Jetnikoff, 2015). In the end, students' writing appeared to improve even though the technical metalanguage that the research team endeavoured to introduce was not, on the whole, taken up by Anna. It appears that positive outcomes were achieved just by slowing down and taking the time to talk about text in functional ways. For this teacher and this class, an explicit focus on teaching the students how to go about writing made a real difference to both teacher and student perceptions of learning and also in the observable features of student writing.

These results point toward the importance of including more instruction in pre-service teacher education on teaching the *process*³ of writing, especially for secondary teachers. It is generally understood that literacy in the early primary school is about *learning to read and*

³ I am not advocating a constructivist approach to 'process writing' here which leaves little room for direct instruction or intervention by the teacher, but rather explicitly modelled experience, guided by the teacher, in how to go about 'doing writing'.

write, whereas from upper primary onwards, literacy is about *learning from reading* and *writing for evaluation* (Rose & Martin, 2012). Teaching writing is seen as core business in primary schools, and primary teachers teach literacy, numeracy and content across the Key Learning Areas while secondary teachers are experts in a particular discipline. This may mean that primary teachers are better equipped by their teacher preparation courses to teach literacy than secondary teachers are.

Primary school teachers are also equipped with an understanding of genres or 'text types' through their inclusion in the curriculum, while genres have traditionally not been a feature of secondary curricula. For example, the previous K-6 English syllabus in New South Wales, lists among others narrative, recount, observation, review, description, information report, procedure, explanation, exposition and discussion (NSW Board of Studies, 2007, pp. 68-70). While these genres are not as explicit in the new K-10 English syllabus based on the national curriculum, the new syllabus does require students to be able to write a variety of text types including 'imaginative, informative and persuasive texts' (NSW Board of Studies, 2012, p. 19). However, because these text types have not traditionally featured explicitly in the secondary curriculum despite the fact that students still need to produce texts of multiple types (see Martin, 2000; Rose & Martin, 2012 who provide some discussion on why this might be so), there may often be a disconnect in what students learn about writing from their primary teachers and what they learn from their secondary teachers. Further research into how to overcome this disconnect between the teaching of genres in primary and secondary school disciplinary areas seems warranted here. The genres of importance in the secondary key learning areas have already been identified (Coffin, 2006; Humphrey, 1996; Kompara-Tosio, 2014; Matruglio, 2016; Morgan, 2013; Rose & Martin, 2012; Veel, 1993; Veel, 1999; Weekes, 2014), and explicit inclusion of these genres in the secondary syllabus documents, as well as the pre-service training of secondary teachers in these genres, would also help equip teachers with more KAL in order to teach disciplinary ways of writing.

Another important contribution of this case is to suggest that teachers need training in not only the essential *products* of writing but also the *process* of writing. Models and exemplars of writing products have been commonplace in educational settings from primary to tertiary level for some time now, however it seems that adequate modelling of the *process* of writing is what is missing for both teachers and students. The genre-based teaching and learning cycle has proven to be one successful tool in this area, as the stage of joint-construction facilitates explicit talk about language while making visible to students how to go about writing (Rose & Martin, 2012; Thomson & Hart, 2006). Teachers could be trained in how to conduct teacher-led joint construction with their classes so that students could be apprenticed into disciplinary ways of making meaning. More research into both the facilitating factors and the barriers to teachers conducting joint writing sessions with students, and to the use of functional terminology for genre stages and phases would also be beneficial. This is one important contribution that SFL can make in the area of teacher education in the area of literacy.

Finally, if we are to take seriously the new Literacy and Numeracy Strategy's call for a 'relentless focus on explicit teaching and high expectations for all students across all sectors' (Department of Education and Communities, 2016, p. 2) then more research needs to be done into the support that teachers require to carry this out. It is both unrealistic and unfair to expect teachers to teach literacy explicitly if they do not have the skills, experience and metalanguage to do so. Many current teachers completed their teacher education in a period with different approaches to teaching literacy than are called for in current syllabus and policy documents. If educational authorities are sincere in their intent to provide more training and support for teachers in teaching and assessing literacy they should foster research which brings practitioners and researchers together to explore ways to tackle the issue.

Design-based research involving teachers and academics working in literacy and educational linguistics could be one fruitful avenue to reveal what works in which situation. The case reported here has revealed both the power of design-based research to bring about change in practice and also the opportunity for the researcher to learn from the practitioner and to question how much and what parts of theory might be useful for practitioners in which circumstances (Macken-Horarik, 2013; Macken-Horarik et al., 2011; Moore & Schleppegrell, 2014; Schleppegrell, Achugar, & Oteiza, 2004; Schleppegrell & de Oliveira, 2006). DBR can perturb much of the taken for granted 'lore' of the researcher and prompt greater reflection on assumptions about the usefulness and accessibility of linguistic or educational theory for practitioners.

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