

Implementing the scaffolding interaction cycle to enable first year undergraduate students to write effective summary-reflections

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ABSTRACT

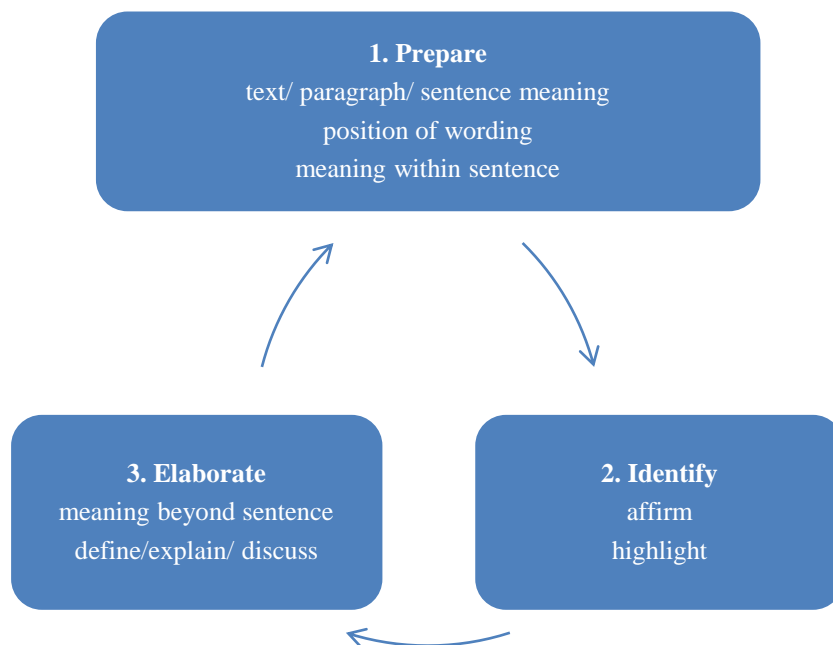
This study evaluates the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008) as a method for text deconstruction in class. The strategy prepared students to write a summary-reflection. To guide the scaffolding interaction cycle and assess the students' writing, the Academic Writing Assessment Criteria (Rose et al., 2008), were used. A pre-test, intervention, and post-test were conducted to determine if students' writing had improved after the session. The intervention was a reading of a student's low scoring summary-reflection from a previous cohort. Findings indicate that this strategy is effective for demonstrating a problematic student paper and also teaching what is required to ameliorate it. It is also beneficial to follow up on the strategy by asking students to work in groups and improve the text through collaborative tasking. The task cycle was ended by students writing individual summary reflections for independent study. It was observed that transfer to individual writing was substantial. Quantitative data demonstrating improvements from pre- to post-tests is provided. So also is qualitative data in the form of extracts of the in-class scaffolding interaction cycle (Rose, 2005; Rose et al., 2008). Finally, implications for the use of the cycle in tertiary classrooms are discussed.

Keywords: Academic Writing Assessment Criteria, Content and Language Integrated Learning, Genre Pedagogy, Scaffolding Interaction Cycle.

Introduction

This paper offers language teachers an insight into how an academic text can be deconstructed through classroom teacher talk. More specifically, it provides an example of how a teacher can read a text to enable students to notice its features, evaluate its effectiveness and prepare to write a text of their own. The text that is chosen for the instruction session is a summary-reflection, written by a student; it needs significant improvement. To raise students' awareness of the problems with the text, the teacher uses a particular instructional methodology. This is known as the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008) diagrammed in Figure 1.

Figure 1. Scaffolding interaction cycle (Rose, 2005; Rose et al., 2008)



In essence, this method follows what Rothery (1996) calls guidance through interaction in the context of shared experience. It consists of a series of three discourse moves: *prepare*, *identify* and *elaborate*. The *prepare* move focuses students' awareness on the text meaning and organisation of the text; the *identify* move affirms students' answers to questions and guides them to notice important parts of the text where these are found. The *elaborate* move elicits reflection from students on the meanings emerging, sometimes going outside the text (exophoric reference) in order to help them make connections to prior knowledge and to engage them in discourse beyond what they can produce independently.

As Martin and Rose (2007a) affirm, this cycle is similar to the Initiation-Response-Feedback pattern (Sinclair & Coulthard, 1975; Nassaji & Wells, 2000). However, the authors explain that there are three crucial distinctions. First, the initial move *prepare* is not to solely elicit a response but is carefully planned by the teacher so that all students should be able to respond successfully; second, the *elaborate* move does not solely evaluate a response but is planned so that shared knowledge of the text and its significance to the broader topic can be discussed in context; it is planned so that many connections can be developed. Finally, the feedback seeks to be affirming, not to reject students' responses. Martin and Rose (2007a) argue that teachers

using the IRF pattern often rephrase, or ask another student the same question because the first has responded incorrectly, and this negates the student. Martin and Rose (2007a) state:

‘The scaffolding interaction cycle is designed to enable all students to always respond successfully’.

The idea is that students should not be negated if possible, only affirmed. This is not just a reflection of awareness of the affective domain but also an observation of typical classroom discourse: the responses that students offer are often not exactly what the teacher seeks so rephrasing and asking other students to respond is common.

Prior research on the scaffolding interaction cycle and its relation to this study

Rose (2005) and Rose et al., (2008) report on long term action research studies at the University of Sydney to assess this scaffolding methodology. The most rapid improvements that these authors noted were in years 1 and 2 of an undergraduate Bachelor course, with each range (low, average, high) improving approximately 30 points using the Academic Writing Assessment Criteria (see section 3.5). They argue that outstanding and rapid successes were achieved. After the cycle was conducted, students were much better able to write summaries of their set readings, which could later be used for literature reviews in research assignments. This was because students could more effectively approach academic reading using the kind of strategies that the teachers modelled during the classroom interactions. In particular, students demonstrated growing awareness of how texts are organised and how they can be used to form discussions. Rose et al (2008) also clearly showed that students’ confidence and engagement in their tertiary study had improved. They were more willing to contribute in an open class situation.

On a more practical level, Martin and Rose (2007a) found that students should have copies of the text being used for the cycle and that during the stages *identify* and *elaborate*, they should be asked to highlight parts of the text or to note down terms that are brought up. This is further elaborated in Rose et al (2008). They state that *text marking strategies* (ibid: 17) might be considered as a useful skill for instruction at this stage. They also posit that through their observations of expert practitioners, two meaning cues are typically utilized during the scaffolding interaction cycle. One offers general experiential meaning, often using statements that provide information to answer ‘wh’ questions (why, where, when, who, what, how) and thus guiding students to find out what the text is about or guiding students to notice how a text is organised. The other provides a common-sense or layperson’s explication of technical wording to describe the text’s organisation or the meanings in the text.

Also on a practical level, Culican (2007) reports that the scaffolding interaction cycle functions most effectively if the moves are very carefully planned. She analyses several teachers in classrooms using the cycle. One of these teachers is unable to offer effective support meaning cues and as a result negates a student. The teacher asks ‘*who was at the door?*’ and a student responds ‘*a strange bloke*’. She then follows up with ‘*what’s bloke?*’ to the same student who does not know the word’s meaning. This results in a silence and another student answering instead. Culican (2007, p. 10) states:

Unless deliberately made an object of study, patterns of classroom discourse can remain invisible to teachers and unrecognised as a determinant of academic success or as a mechanism of exclusion.

As Culican (2007) argues, this type of negation can be avoided if *elaborate* moves are used to unpack words and phrases first before asking such questions. Thus, the *elaborate* move of the cycle can be exploited actively to not only avoid negating students but also to raise all students' understanding to a higher level by focusing on the meanings that students might find difficult to understand independently in a text.

This study follows the practices outlined by Martin and Rose (2007a). In particular, students were encouraged to annotate the texts used for the scaffolded readings and meaning cues were adopted by the tutor to *identify* and *elaborate* as outlined by these authors. In addition, detailed planning was conducted to prevent any negation following Culican's (2007) report. The study therefore positions itself within the framework of these pieces of research. However, this study is a little different from those in that it uses a low scoring student text as a basis for the scaffolded reading. To this author's knowledge, prior research has not reported on the effectiveness of using this type of text to scaffold input effectively. In addition, not only did the intervention focus on how to summarize a text, as is reported in both Martin and Rose (2007a) and Culican's (2007) cases, but also on how to respond to that text. This was another benefit of using a text that students would be required to write rather than one they would only summarize. It is hoped that this study will therefore be of interest to the research engaged in this field.

The study

Context

The Writing Unit of National University of Singapore delivers an innovative academic English writing programme for first year undergraduate students known as the Ideas and Exposition modules (IEM). It comprises several 48-hour courses delivered in English over one semester of twelve weeks by content specialists with PhDs in areas such as Film Studies, Popular Culture, Bioethics and Sociolinguistics. Using the specialist content, tutors develop students' critical thinking skills and academic reading and writing skills by stimulating reflection, discussion and writing on issues and, in particular, how best to construct evidence-based arguments. For IEM1 modules, assignment 1 is a summary-reflection (see section 3.3. below). Assignment 2 is a comparison paper for which students can either compare two authors discussing the same phenomenon or use a particular lens to analyse a phenomenon. Assignment 3 is an academic persuasive essay (APE) for which students are asked to formulate and investigate a research problem within the specific field, analyse data and draw conclusions from primary and secondary sources, and to focus on contestable elements from the topic selected.

The maximum class size is twelve to enable teachers to work closely with individual students on their writing. Students are from different countries (Chinese, Indian, Indonesian, Malaysian, and Singaporean) and faculties (Science, Engineering, Arts & Social Science, Medicine, Business, Design & Environment, Computing and Law). Further participant details are provided in the section on research participants. In order to cater to these diverse interests, course content needs to have a broad base. The subject of the module presented for this research is the study of sport as a social phenomenon. Topics emerging from this field can have a strong natural science focus as well as a sociological or philosophical one. For example, the phenomenon of performance-enhancing drugs in sport can be studied as a socialisation process or as a commodity industry; it can also be looked at from the perspective of the health issues or the biotechnology that is developed in the pharmaceutical context. Other topics to cater for

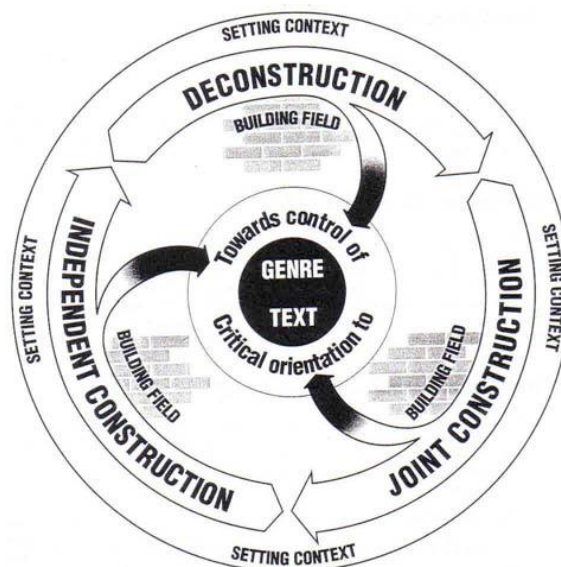
faculties such as Law students can also be covered, for example, questioning whether doping needs to be under Penal Law rather than policed by an independent body e.g., World Anti-Doping Agency (WADA) as it is today in most countries, including Singapore. These topics are but a few of many that have been explored by students.

Instructional paradigms

Genre pedagogy

On a broader level, the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008) is part of genre pedagogy (Martin and Rose, 2005; Paltridge, 2002). This paradigm is very important for the module during which this research was conducted. It guided the development of the reading corpus, classroom activities and assessment instruments. Genre pedagogy advocates a holistic approach to teaching and learning (Coffin & Donohue, 2012; Hyon, 1996; Martin & Rose, 2007a, b; Paltridge, 2002; Swales & Feak, 1994), in particular, analysing how texts are formulated and how they instantiate the language system. A framework for genre pedagogy has been constructed. The model can be seen below in Figure 2, taken from Martin and Rose (2007a, p. 252).

Figure 2. Genre pedagogical cycle



(From Martin and Rose (2007a, p. 252))

The genre pedagogy cycle is made up of four stages (see Figure 2) and is used to teach academic literacy through texts. One of the keys to this method is to initially engage students with the general content, then to move on to examining discourse level features of the text; and then finally, to focus on micro features. The first stage is *building the field*, which is really preparing to read. Activities are conducted which help students explore the specific topic and genre: the context; the main purpose of a reading text; and the relationship between the writer (s) and the reader (s). The second stage is known as *modelling*. It is normally at this stage that the teacher uses the moves of the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008). During this stage, the teacher guides students, through explicit talk, to explore how a text is constructed and how its parts perform certain functions and comprise specific language features. During

stage three, students and the teacher engage in a *joint construction* through activities which focus on producing the genre under examination collaboratively, often in whole class situations. At this stage, the group is believed to work at higher cognitive levels than the individual as *collaborative elaboration* (O'Donnell, 2006; Van Meter & Stevens, 2000) occurs. Finally, stage four is *independent construction* whereby students exercise complete independent control over the focus genre.

Content and language-integrated learning (CLIL)

In addition to genre pedagogy, content and language-integrated learning (CLIL) pedagogy is important to the module because there is a specialist content focus as well as a general academic language focus. As Marsh et al., (2010, p. 11) state:

CLIL is a dual-focused educational approach in which an additional language is used for the learning and teaching of content and language with the objective of promoting both content and language mastery to pre-defined levels.

CLIL shares similarities with genre pedagogy. As with the genre pedagogy framework, CLIL teachers attempt to integrate both language and content teaching rather than resorting to decontextualized grammar instruction or content instruction with only incidental mention of language (Leibowitz et al., 2011; Lyster, 2007; Piretti, 2011). As a result, these classrooms are considered to be language-acquisition-rich environments (Marsh and Fregols, 2013). In particular, they are said to be effective in developing larger receptive and productive lexicons (Dalton-Puffer et al., 2008; Lo & Murphy, 2010; Ruiz de Zarobe, 2011; Zydariß, 2007) and being cognitively challenging (Baetens-Beardsmore, 2008). Genre pedagogy can be integrated with CLIL. An integration of both CLIL and genre pedagogy, therefore, means that students can simultaneously learn content-specific and academic language as well as how to construct particular text-types. These were the main purposes of the module and the main purpose of the research was to teach how to use specific and general academic language to write a summary-reflection.

The principles behind both genre pedagogy and content and language-integrated learning (CLIL) pedagogy are represented in Bernstein's (1975, pp. 88-89) notions of *classification* and *framing*. Classification 'refers to the degree of boundary maintenance between contents' and framing 'to the range of options available to teacher and taught in the control of what is transmitted and received in the context of the pedagogical relationship'. For Bernstein (1975 pp. 119-120) weak classification and framing are part of invisible pedagogy (associated with progressive educational practices) while strong classification and framing characterize visible pedagogy (associated with traditional educational practices). Martin and Rose (2007a, p. 252) explain that an invisible pedagogy is constructed through implicit hierarchy; implicit sequencing rules; and implicit criteria with an underlying rule that 'things must be put together.' In contrast, a visible pedagogy is constructed through explicit hierarchy; explicit sequencing rules; and explicit as well as specific criteria. The underlying rule is that 'things must be kept apart.' Genre pedagogy and content and language-integrated learning (CLIL) pedagogy draw on both of these stances: a weak classification and framing occurs at the building the field stage, during which students voice their knowledge and opinions on the topic; a stronger classification and framing occurs as the focus turns more to purpose and structure of the genre and then to more micro-level themes such as sentences; conceptual phrases or words and their meanings.

The summary-reflection genre

As its name infers, the summary-reflection is a hybrid of two text types, a summary and a reflective piece, often called an exposition. Below is a brief explanation of how this genre is constructed. This is further explained in section 3.5 by using the Academic Writing Assessment Criteria from Rose et al. (2008) to explain how the genre can be evaluated.

A *summary* should first classify the genre it is adopting. It should then identify the gist of the paper; and the key claims of each section or paragraph. It should also describe how the evidence reported relates to the claims made. The distinguishing factor between paraphrase and summary, as pointed out by Greene and Lidinsky (2008, p. 126), is that whereas the paraphrase is a restatement of the information in a passage, a summary contains only the key ideas that are central to the writer's own text, and the arguments that he wishes to advance.

The *reflection* section of a summary-reflection is similar to a basic exposition task whose social purpose is to present a logically-sequenced argument in favour of a judgment. In a summary-reflection, the reflection should respond to the points already raised in the student's summary. It should engage in evidence-based argument which problematizes aspects of the summary. Thus, the summary-reflection can be represented as a genre as shown in Table 1.

Table 1. Summary-reflection genre

Genre: summary- reflection	Social purpose	Schematic stages	Sub stages
Summary	To condense a body of information portraying its key ideas and its sources in order to advance an argument.	Present gist. Describe key claims and evidence illustrated.	Introduce context. Present gist: author's central idea. Describe key claims and evidence: present each paragraph's main content, the author's point of view and argumentation as well as the evidence used as support.
Reflection	To present a logically sequenced argument and a position.	Thesis. Argument (implications).	Thesis: state position. Argument: point (present key claim); elaboration (support with evidence); implication (state importance of claim).

As already noted, this genre is the first of three assessment instruments used at the Writing Unit of the National University of Singapore for the suite of modules pertaining to IEM1. It is believed that by asking students to do this as a first task, they are learning important skills which are present in all evidence-based argumentative writing genres, including the academic persuasive essay and the social science research paper. A fundamental part of either of these text types is the literature review, which, in part, is a summary of other sources. Another fundamental element of these papers is the discussion, which is the ability to draw on the sources used in the literature review and to evaluate and assess them in relation to one's own argumentation.

Methodology

Research problem

The need for this research process emerged because students were weak in summary-reflection writing. Applying Rose et al.'s (2008) Academic Writing Assessment Criteria (see section 3.5), students' pre-intervention summary-reflection scores were poor; the mean score was 35. This teacher-researcher sought strategies to improve these low scores.

Research purpose

The purpose of this research was to find and test a strategy to improve student ability in summary-reflection writing. The intervention chosen was the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008). The teacher talk was planned with the Academic Writing Assessment Criteria (AWAC) in mind. That is, the content of the teacher talk was devised with an awareness of the differing foci that should be used when examining a text. As these criteria were constructed by Rose et al (2008) to systematically assess genres, they helped as a guide when constructing questions and prompts for a scaffolding interaction cycle. The instrument is also used for assessing students' writing. In this way, the teaching and assessment were closely linked.

Research objectives

In order to achieve the purpose of the research, the following objectives were constructed:

- To evaluate how effective the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008) can be in enhancing the teaching of a text. This was achieved through recording and transcribing the teacher-student interaction during the scaffolding interaction cycle and then analysing the transcript. The two sections chosen comprised talk about *genre* and then *register*. These were selected because they are considered to be essential for the writing task as they cover the purpose and structure as well as the specific and general academic language and conceptual understanding of the content of the text.
- To assess the gain from pre- to post-intervention for the summary-reflection task by comparing the scores of the student papers pre- and post-intervention using the Academic Writing Assessment Criteria (Rose et al., 2008).

Research participants

The class comprised seven male and five female first year undergraduate students from different countries in Asia (China x 2, India x 2, Indonesia x 1, Malaysia x 1, and Singapore x 6). They belonged to diverse faculties (Science, Engineering, Arts & Social Science, Medicine, Business, Design & Environment, Computing and Law). Their ages ranged from 19 to 22. Prior to joining the university, most of the students had been studying in school or in polytechnic using English as a medium of instruction. Generally speaking, all students were able to use academic English well. The fact that they had qualified to study this course meant that they had done well in the English centre's qualifying English test at the beginning of the academic year. In addition, each student knew that the research was taking place and all gave active consent. No names are given in the transcription so as to provide student anonymity.

Research procedures

The field had already been built over a 1.5 hour session before students were asked to read an extract of a book entitled *Sports in Society* (2009, pp.102-104) by Jay Coakley as independent study in preparation for the session. This reading was a consolidation of the language and conceptual content that emerged during that session. Each student brought a copy of this text with them to class. In class, the script used for the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008) was a previous student's summary of this Coakley text. The student was from a previous cohort studying the same module. It was a low-scoring paper. Using the Academic Writing Assessment Criteria it received a 32 out of a possible 66. The paper was chosen for analysis because it contained common problems at the genre and register levels. Again, each student was given a copy of this text. Line spacing was double and margins were provided so that students could annotate their copies during the intervention. Once the scaffolding interaction cycle had been conducted, students were asked to work together in groups to write a summary- reflection of the same Coakley text together. These texts were then shared and discussed in an open class, roundtable session. As a final task, students were provided with another text related to the topics covered in the Coakley and asked to write individual summary-reflections for this as independent study.

The Academic Writing Assessment Criteria

The criteria used to design the scaffolding interaction cycle and applied for the assessment of student products was the Academic Writing Assessment Criteria from Rose et al. (2008). This instrument is specifically constructed to measure students' writing after a genre pedagogy cycle has been implemented. Thus, it is a systematic model of how language is used in its social contexts because it analyses both macro and micro features (Martin & Rose, 2003). It offers relevant qualitative feedback using terms related to this pedagogy; it also provides a numerical score so that quantitative measures of learning gains can be accessed. Rose et al (2008), from the University of Sydney, developed the instrument so that rates of literacy improvement could be objectively measured. This model comprises eleven criteria grouped in five categories: genre; register; discourse; grammar; and graphic features. Each criterion is given a score ranging from 0 (lowest) to 6 (highest). These are presented in tabular form below with a question to represent what is tested by each criterion (see Table 2).

Table 2. Academic Writing Assessment Criteria (Rose et al., 2008)

Genre	Is the genre appropriate for the writing task? Does it go through appropriate stages?
Register	Field: Does the writer understand, interpret and/or explain the topic coherently?
	Tenor: Are evaluations appropriately objective if required by the genre?
	Mode: Is there an appropriate use of technical and/or abstract language if required by the genre?
Discourse	Phases: Is the text organised in an appropriate sequence of phases?
	Lexis: Is the field well-constructed by technical lexis and sequences of lexical relations?
	Conjunction: Are logical relations coherently constructed between sentences and phases?
	Reference: Is it clear who or what is being referred to at each step of the text?
	Appraisal: Is appraisal used judiciously to evaluate ideas, arguments, people, things and texts?
Grammar	Are sentences organised to present information coherently? Are written grammatical conventions used appropriately?
Graphic Features	Is the layout clear, including paragraphs and sections? Are illustrations used appropriately and clearly? Is spelling accurate? Is punctuation used appropriately?

These criteria can be applied to any genre. The following will describe how a summary-reflection can be analysed using the model.

At the macro end of the model, criterion 1, *genre*, examines whether the schematic stages of the text are present and constructed appropriately. For example, there should be a clear contextualisation of the text being summarised providing author and journal details. For *register*, three criteria, *field*, *tenor* and *mode* are the focus: *field* assesses the writer's understanding and use of the relevant content area; *tenor* is used to analyse if the summary is objective and the reflection, persuasive. The *mode* is used to examine whether the student is using academic language effectively or whether, as is often the case with inexperienced writers, the language appears closer to speech written down. *Discourse* consists of four criteria: *phases*, *lexis*, *conjunction* and *appraisal*. *Phases* is used to analyse whether the student has sequenced meanings logically and clearly throughout the text. *Lexis* examines whether a good amount of technical wording is used accurately. This is sometimes referred to as *lexical density*. *Conjunction* assesses the way logical relationships between sentences and phases are constructed. *Reference* is used to test whether things are tracked effectively in the text, for example, through judicious use of *pronouns*. *Appraisal* assesses attitude in text and, in particular, the use of *evaluative language*. With *grammar*, a focus is made on *theme/ rheme* analysis i.e., whether each sentence has a clear departure point that relates to prior messages and is followed by new information. For this research however, it is also used to refer to mechanics at micro-level such as *misuse of determiners*, *noun and verb forms*, *tense errors*, *word order* and *subject-verb agreement errors*, *wrong use of prepositions*, and *errors in constructing subordinate clauses*. Finally, *graphic features*, examines other mechanics such as *spelling*, *punctuation* and *paragraphing*. For this section, *run-on sentences* may also be assessed. In addition to the moderations at the grammar level, there was a change to the model for this research paper: *lexis* was not used because it was found that *field*, part of *register*, could be applied to assess the use of technical wording.

Low scoring student text

The script used for the scaffolding interaction cycle is provided below:

Summary

Though sports could be defined in various means, the most popular sports are those which fit the "power and performance model", where sportsmen and sportswomen need to challenge themselves both physically and mentally to claim victory and beat other competitors. Contrastively, some sports fall into the "pleasure and participation model", where people actively participate but only to further improve their own physical well-being and skills and not to win at all costs.

Reflection

The "power and performance" sports share a similar concept with today's modern world, especially in terms of competitiveness and rewarding. By emphasizing competition as "a fair means of determining who gets what in the society", we indeed accept the idea naturally. Nonetheless, this is a way of defining sports in our society which has rarely come into the picture.

Scoring of text used applying the Academic Writing Assessment Criteria

Table 3 shows the analysis of low scoring student text using the Academic Writing Assessment Criteria.

Table 3. Qualitative and quantitative analysis of low scoring student text using the Academic Writing Assessment Criteria

Genre	Summarizes and interprets the text quite well. However, there is no clear contextualization of the extract.	2
Register	Field: the two sports models are described but minimally; more substantive terminology relating to the sociology of sport field required.	3
	Tenor: Evaluations appear mostly objective. However, no authorities have been drawn on. No tentative language such as modality for hedging is used.	3
	Mode: Some abstract academic terms such as 'concept' and 'impact' are used appropriately but 'means' does not appear to be. 'Come into the picture' is spoken, not written mode.	3
Discourse	Phases: The two macro phases (summary then reflection) are clearly presented. However, no statement of purpose (orientation) is given at the beginning. Also, the conclusion is only tacitly connected to the reflection.	3
	Conjunction: Some comparing conjunctions used but these are inappropriate (contrastively) or not characteristic of academic writing (though). No opening or concluding conjunctions. Cause-effect subordination used confusingly: <i>By emphasizing competition as "a fair means of determining who gets what in the society", we indeed accept the idea naturally.</i>	3
	Reference: Some anaphoric and cataphoric text reference. Use is made of the general noun 'sports' to refer forward, then a superlative form and determiner (some) to continue this thread. 'This' is used to anaphorically sum up the paper.	3
	Appraisal: A very little number of sophisticated appreciation resources are used. Negative judgement is present: <i>rarely come into the picture</i> but the meaning is not clear. This appears to be a critique but further evaluation seems required. No authorial attribution is used, only personal sourcing e.g., <i>we</i> .	2
Grammar	Written grammatical conventions are, on the whole, used appropriately; theme and rheme relations tend to be clearly presented. However, 'rewarding' is inappropriate as is the by-clause: <i>by emphasizing competition as "a fair means of determining who gets what in the society", we indeed accept the idea naturally.</i> Here, the subordinate and main clause have no logical connection.	4
Graphic Features	There are no sets of paragraphs to match phases but given the length of the work, this is not a flaw. There are no spelling errors. A variety of written punctuation is used.	6
Total		32

Results

Extracts from the scaffolding interaction cycle implementation

The reading of the low-scoring text was found to be a very effective way to scaffold the writing of a more appropriate text at both macro and micro levels. It was possible to explore the main tenets of the genre structure of the summary- reflection as well as content-specific language. It was also possible to teach some academic writing skills such as hedging. Extracts from two stages of the scaffolding interaction cycle are provided below. These are at genre level and register level in accordance with the Academic Writing Assessment Criteria (Rose et al., 2008). The symbols StA, StB and StC have been used to indicate that different students were talking at different times.

Table 4. Extract of the scaffolding interaction cycle at the genre level

Teacher talk		Student talk
Prepare	Now, we know that this summary/reflection needs to be a stand-alone product; a text that someone can read without having to refer to the original. Does it effectively do this?	StA: It does not as there is no author or source offered.
Identify	Exactly, the author or the text's origins are not provided. Can you write in where that information should be given please? [Students write individually on their copies of the text]	
Elaborate	So, the orientation is weak: that is, there is no clear contextualisation of the text stating when and by whom is what written; or where it was extracted from.	
Prepare	[Teacher looking at one student's work in the class] Is this an extract from a journal article or from a book?	StB: We're not told - but it is based on a summary of an extract from Coakley's book <i>Sports in Society</i> .
Identify	Good, so mark in where the student should state where the text summarised is from and who the author is. [Students continue to write individually on their copies of the text]	
Prepare	What should it then do? Should it start going into a lot of detail about the text?	StC: No, it should give an overview of Coakley's reason for writing the text.
Identify	Good, the purpose for writing - put that in too please. [Students write individually on their copies of the text]	
Elaborate	OK, contextualisation first then purpose for writing. It is very important to do these first. It helps your summary-response to be a stand-alone product. The purpose could be introduced in the summary as something like: <i>Coakley provides a model for classifying contemporary sport forms</i> .	

In the extract in Table 4, at each stage in the discourse, a student offers an appropriate response to a question indicating an understanding of the structure of the *summary* e.g., *no source offered; an overview of the reason for writing*. The *elaborate* stage follows that, and it allows the teacher to make connections to students' prior knowledge and to engage them in discourse beyond their independent level and thus to provide input. Terms such as *orientation*, *contextualisation* and *purpose for writing* are used to teach the metalanguage of genre pedagogy.

Table 5. Extract of the scaffolding interaction cycle at the register level

Teacher talk		Student talk
Prepare	OK, we're going to talk about content-specific language now or 'field'. Are the two sport models clearly described using content-specific language?	StA: No, There is only a layperson's understanding – beating others or improving self. There could be mention of hegemonic sport form as winning at all costs and counter hegemonic as sport form for connecting to one's body and others.
Identify	Good: can you highlight where the models are described and write in how they could have been described better in the margin next to it? [Students write individually on their copies of the text]	
Elaborate	Excellent. This is a sport form continuum. It ranges at one end with the dominant or hegemonic sport form, the most commercial, for example, the NFL. The focus is on full contact and hyper-competition. At the counter hegemonic end, there are passive sports, for example, Tai Chi, which are generally non-competitive and seek holistic development. There are also subaltern or lifestyle sports such as surfing or skating that consciously separate themselves from commercialism.	

In the extract in Table 5, the student uses content-specific terms (*hegemonic and counter-hegemonic sport*) as well as an appropriate elaboration of these terms. This enabled the teacher to further expand on this turn to develop the conceptual meaning using terms such as *hyper-competition, holistic development* and *subaltern sports*. This demonstrates the effectiveness of the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008) for the teaching of register, particularly field.

Example summary-reflection produced by a group in class after the scaffolding interaction cycle

As a post- scaffolding interaction cycle task, students were asked to work in groups to write a summary- reflection using the same Coakley text and then to share their work with the class. As already noted, they had been annotating the exemplar during the scaffolding interaction cycle. An example text written in class is provided below. This was sampled randomly from four groups of three students.

Summary

In this extract from Sports in Society (2009, pp.102-104), Jay Coakley seeks to explain sociologically the dominance of certain sport forms and categorizes these using a continuum made up of two extreme types: the hegemonic, most publicized "power and performance model" such as the NFL, where athletes need to challenge themselves both physically and mentally to claim victory at all costs, and peripheral, rarely publicized, subaltern "pleasure and participation" sports, such as Tai Chi, where people actively participate but only to further improve their own physical well-being and skills.

Reflection

The “power and performance” sports could be said to share similar characteristics with today’s modern world, especially in terms of competitiveness and rewards. Competition is emphasized as “a fair means of determining who gets what in the society” and we tend to accept the idea naturally, what Gramsci, in his Hegemony Theory, refers to as ‘active consent’ (as cited by Coakley, 2009, p.102). However, the extract lacks evidence. For example, pleasure sports could be less mediatized in society because they are less exciting to watch. Nonetheless, this is an effective way of defining sports in our society which has rarely come into the picture.

The score of this post-intervention text is given in Table 6. It is then qualitatively analysed.

Table 6. Scoring of post-intervention text using the Academic Writing Assessment Criteria (Rose et al., 2008)

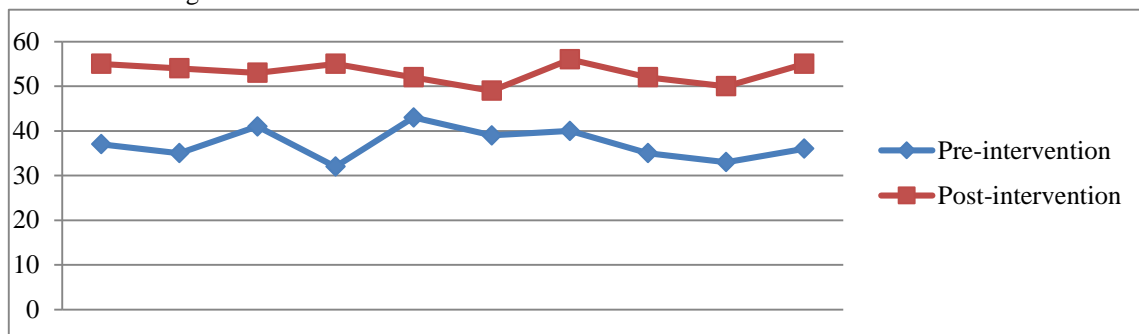
Genre	5	
Register	Field	5
	Tenor	5
	Mode	6
Discourse	Phases	6
	Conjunction	6
	Reference	5
	Appraisal	5
Grammar	6	
Graphic features	6	
Total	55	

The example text is much more appropriate in all spheres of the Academic Writing Assessment Criteria (Rose et al., 2008) except graphic features, which was not problematic in the pre-intervention text. Genre features are clearly evident: there is a sound orientation to the purpose of the Coakley text and the conceptual terms are clearly explicated. In addition, in the reflection, students apply Gramsci’s hegemony theory effectively referring to *active consent*. It also attempts to critique the extract stating that sports may be commercial because they are exciting, rather than because of a more underlying ideological purpose.

Comparison of scores between pre- and post-intervention using the Academic Writing Assessment Criteria

Students had already written a summary-reflection of a text before this research cycle was conducted as a pre-test. Students were then asked to write a summary-reflection of another text one day after the intervention. The texts to be summarised were similar in size and linguistic as well as conceptual difficulty. Ten papers were selected randomly from the same ten students for both of these stages. Prior to the intervention, students were given no instruction about the task. This was felt to be necessary in order to test the intervention reliably. The differences in the scores are provided in the form of a line graph in Figure 3.

Figure 3. Comparison of scores between pre- and post-intervention (scaffolding interaction cycle) using the Academic Writing Assessment Criteria



It can be observed that there is a marked improvement in the scores suggesting strongly that the scaffolding interaction cycle session was effective. In general, students scored much more highly in the genre and register areas. The reasons for this and the implications of the research are discussed in the following section.

Discussion

It is probable that the improvements in scores for the summary-reflections occurred after the intervention because students were given explicit instruction at the genre and register levels in the classroom (these areas amount to 24 of the possible 60 points). It is rare to observe teachers doing this in language classrooms. Teaching practice still tends to function at extreme opposites: either a focus on decontextualized language at the grammar level in the form of sentences; or elimination of any grammar instruction. Using Bernstein's typology, teachers at tertiary level, tend to adopt the latter practice, an invisible pedagogy with a weak framing and weak classification. The scaffolding interaction cycle intervention enabled a strong framing and classification as an examination of the macro features of the text as well as the text's micro features, in particular the lexico-grammatical resources. Both of these areas were essential for the preparation of assignment 1 as students were required to write a specific genre and understand and use field-specific lexis.

Teaching via a text that scored poorly using the Academic Writing Assessment Criteria (Rose et al., 2008) was effective. It provided a platform to draw out what students were able to notice at their levels of understanding at that moment and this offered the teacher an opportunity to build on their responses and to convey important information. Therefore, using a low-scoring paper effectively enabled the teacher to utilize the *elaborate* move of the scaffolding interaction cycle (Rose, 2005; Rose et al., 2008) and to scaffold input effectively. For example, after StA responds in Table 4, and after the students have written in the source and author data on their copies of the student's text, the teacher is able to sum up through the *elaborate* move by providing input using the term *orientation*, which he then defines as a *contextualisation*. Therefore, in class, and in real time, the teacher was able to make connections to students' knowledge and engage them further in discourse beyond what they could produce independently. Similarly to Culican (2007), this author has found that the scaffolding interaction cycle functions most effectively if the session is very carefully planned. The students had written a summary-reflection before the session (there had been no instruction for this); they had also read the Coakley text before the intervention and were familiar with the conceptual and linguistic terms. This meant that the teacher could be confident that students would respond to the *prepare* moves in Tables 4 and 5.

The writing assessment criteria from Rose et al (2008) offer an excellent range of descriptors with which to explore the quality of a summary-reflection and with which to design a scaffolding interaction cycle. Offering six points for constructing the genre appropriately was found to be motivating for students and this aided in assuring that this very important element (as already noted, one which is often neglected) was foremost in their minds. Additionally, using the concept of *register* was found to be a sophisticated method for thinking about and teaching multiple aspects of language simultaneously. Not only could the text be analysed for appropriate use of technical wording such as *sport form continuum* but also for the general academic language. This is not shown in the transcript as it did not emerge during the scaffolding interaction cycle recorded (it came up towards the end of the same session) but one very important difference between the summary and the reflection stages of the genre is that the summary contains objective, factual language and the reflection, subjective, evaluative language. In the higher scoring text in section 4.2., for example, the summary comprises descriptive, factual language with no modality e.g., *Coakley seeks to explain sociologically the dominance of certain sport forms and categorizes these using a continuum*. In contrast, the reflection contains highly evaluative language e.g., *However, the extract lacks evidence*. These particular characteristics were communicated to students before they were asked to write the summary of the text for the post-intervention stage of the research cycle and it proved to be an important learning point as it increased students' scores.

The main focus of the research was not to observe how well students worked collaboratively in groups to rewrite the low-scoring student's text after the scaffolding interaction cycle had been conducted. However, it was observed that this was a useful learning stage and probably an effective transitional stage for the students to pass through before writing their individual summary- reflection tasks. As noted already, groups are believed to work at higher cognitive levels than individuals (Van Meter & Stevens, 2000) and as O'Donnell (2006) posits, students can better learn technical material collaboratively. It was observed during the collaborative tasking for this research cycle that while students engaged with each other to write the summary-reflection, they were using field-specific terms related to sport as well as metalinguistic terms introduced by the teacher about the structure of the genre. It was therefore a good opportunity for the students to share their knowledge, learn from each other, and to internalize the input.

Finally, the transcript demonstrates that although the strategy is known as the scaffolding interaction cycle, this strategy is predominantly teacher-fronted. This might deter teacher-practitioners from adopting it. However, it should be noted that there is no reason why a teacher should not allow discussions to form at any moment during the scaffolding interaction cycle. The transcripts are provided above because they demonstrate how the triadic structure (*prepare, identify and elaborate*) was used. If students wish to discuss a conceptual area, an opinion or an instance of language use in the text during this teacher-fronted period, this should be encouraged. The more student engagement and contribution, the better as this enables the text and the context to be more deeply processed. However, for this to be conducted well, the teacher must be able to work spontaneously, and to follow students' lead, and this can become challenging.

Conclusion

This research provides a basic overview of how a scaffolding interaction cycle can be used as well as a rationale explaining why it is an effective strategy for teaching academic writing. It also demonstrates how this strategy can be linked to the Academic Writing Assessment Criteria

from Rose et al., (2008). This combination enables the teacher to explicitly teach content and structure simultaneously using top down (macro) and bottom-up (micro) analyses. It also enables the teacher to provide qualitative and quantitative feedback, making formative assessment an explicit element of the instructional process. Perhaps what makes the research reported here unique is the use of a low-scoring student paper as a basis for the scaffolding interaction cycle. This was found to offer a solid platform from which to elicit student responses and this enabled the teacher to gauge the level and extent of input required. It was also a good way to set up a collaborative group task to improve the student text once the intervention had occurred. Future research might compare the use of low and high scoring texts as a basis for a scaffolding interaction cycle. A high or low scoring text could be given after the cycle for the groups to rewrite. It would be interesting to compare the student responses in class, and, if there are differences, how significant these are.

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