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## **A model of simplification - The ways in which teachers simplify learning materials**

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### **Introduction**

Many educational practitioners in the United Kingdom, working with the challenge of a diverse learning population, provide simplified language materials (SLMs) to their students (Barnard & Burgess, 2001; Rix, 2004, 2006). Their use in mainstream classrooms has not been evaluated however. This paper explores the manner in which teachers and support staff develop these SLMs. It reports upon an examination of the texts of thirty three practitioners working in the South-East of England. Through a detailed analysis of the texts four approaches are identified that have the potential to act as a set of concepts for describing SLMs and exploring their possible efficacy. The validity of these approaches is further assessed through a survey of forty three practitioners, also working in the South-East of England.

### **Simplification and its use**

Simplification has been presented in many different ways. Leow (1997) identifies eight ways within Tickoo's (1992) collection of papers on the subject. As Leow points out, such a broad range of definitions makes it harder to assess the nature of simplification and its effect. In the context of this paper, therefore, SLMs are defined clearly as a contextualised syntactical and lexical approach to language, based on a definition with which practitioners in England have been shown to agree (Rix, 2006). Simplified

Language Materials (SLMs) are materials that use shorter words and sentences, with fewer clauses, and less negative and passive forms, in comparison to the texts used typically in a given setting.

Simplified texts have been used in a wide variety of contexts since the early twentieth century. Within English schools they served as the basis for literacy development and language learning for many years, with reading schemes that drew upon restricted word lists such as Michael West's General Service List (1953). It has also been seen as a key approach to teaching English as an Additional Language and as an important means of communication for people with learning difficulties (Alton et al, 2002; Autismhelp.info (2005); North West SEN Regional Partnership 2005). In the United States, simplified language was also seen as a key method of assuring that workers and customers understood texts, especially instructional texts (Flesch, 1948).

### **Arguments for and against simplification**

The simplification of language to enhance the educational experience of learners has long been contested. Hayes, Wolfer, and Wolfe, (1996) suggest that declines in the verbal scores of US Scholastic Aptitude Tests are a consequence of the use of simplified readers. Others suggest that simplification impedes language acquisition (Mishan, 2005; Larsen-Freeman and Long, 1991), and that such material may lead students to develop reading strategies that are inappropriate for unsimplified English (Honeyfield, 1977). Providing SLMs also risks impacting upon students' identities within the mainstream class (Rix, 2004) and can be insensitive to changing audiences (Brumfit, 1992). Their impact on learners' comprehension and intake (Leow, 1997), is also unclear, with early research

suggesting it does not enhance comprehension, when measured by ability to answer questions, retain information over time, and recall important aspects of content (Chalke, 1958; Klare, 1963).

However, other researchers have demonstrated that simplified texts can increase comprehensibility (Tweissi, 1998), even if it not always significantly so (Young, 1999), or if it involves content-unfamiliar text (Keshavarz, Atai, & Ahmadi, 2007). Simplified texts also impact on students' perception of their increased comprehension (Lotherington-Woloszyn, 1988), and have been shown to have a positive impact on virtually all student results in an exam situation (Abedi, Lord & Plummer, 1997). Teachers have also expressed clearly that they believe that SLMs enhance comprehension and access to the curriculum (Rix, 2006).

Teachers are often encouraged through guidance in textbooks or on websites to write in a simplified manner so as to produce accessible plain English. It is often suggested that they use readability formulas to assess the syntactic and lexical levels of written text (DCSF, 2008). However, these formulas have come under a wide range of attacks in relation to both their reliability and their impact on writing and reading (Schriver, 2000; Connaster, 1999; Newton, 1990; Klare, 1988; Redish, & Selzer, 1985; Harrison, 1980; Granowsky & Botel, 1974).

### **Alternative teaching approaches**

There are a range of techniques for accessing texts and facilitating the acquisition of language, which are also advocated instead of SLMs. Bilingual learners have enhanced

academic outcomes and second language learning if they have more first language schooling (Thomas and Collier, 2002). Authentic texts are also recognised as being effective learning resources (Olivares, 2002; Mishan, 2005), as is the addition of elaborative changes to texts to help readers to explore meaning (Yano, Long & Ross, 1994). Underpinning these approaches is a focus on the ideas and content within texts, so as to generate comprehension and language learning. It is suggested that abstract and complex concepts can be made comprehensible if teachers draw on the learner's background-knowledge of lesson content and of forms of learning (Cummins, 2000; Leung, 1996), and if students focus on the ideational aspects of a wide range of 'sophisticated non-simplified subject material' (Barnard and Burgess, 2001, p327).

People with learning difficulties also benefit from a range of teaching approaches, including peer interactive approaches, alternative groupings, visual communications, pre-teaching, and from the nature of the setting, the task and the breadth of experiences they are offered. As a consequence there is increasing evidence of individuals with learning difficulties gaining access to complex texts (Scanlon, Deshler, & Schumaker, 1996) and becoming accomplished readers (Diehl, 2003; Groen, Laws, Nation & Bishop, 2006).

### **Additional teacher challenges**

Providing activities to learners in sufficient contexts to cognitively stretch students and offer access to complex concepts is one of the most challenging tasks which teachers face (Hall, 1996). They are being asked to provide authentic, accessible learning opportunities and materials to the full range of students in settings where there is a great breadth of learning experience, engagement, skill and support. For example, in England in 2007,

13.5% of pupils in primary schools and 10.5% in secondary schools had English as an additional language, 9.4% across all schools were identified as being Gifted and Talented, and 19.2% as pupils having special educational needs. Average class sizes were 26.2 pupils in primary schools and 21.3 in secondary schools, with 21.9% of pupils in primary being classified as minority ethnic origin and 17.7% in secondary schools (DfES, 2007a).

Many teachers do not seem well prepared for these challenges either. In studies across the years, teachers have consistently felt that they do not have the resources, time, skills or training to include people with special educational needs (Scruggs & Mastropieri, 1996). Many do not recognise that they need to take responsibility for language learners either, (Barnard and Burgess, 2001) and are unaware of the impact of their practices upon language learning, (Bourne, 2001). In addition, despite being encouraged to provide bilingual learning opportunities (DfES, 2007b), they struggle to do so if they do not speak the appropriate language and will often lack adult bilingual support (Bourne, 2001). In providing support to the broad range of pupils, teachers in England increasingly rely upon teaching assistants, special needs support staff, and minority ethnic pupil support staff, with 1 supporter for every 2.7 full time teachers (DCSF, 2007). Often, however, they have very different priorities and mindset (Creese, 2000).

### **Research into practitioner simplification**

Despite the many criticisms of simplification, teachers and support staff in England make wide use of SLMs, as a means of enhancing access to, and comprehension of, the curriculum for a wide range of students (Rix, 2006). In a survey of two hundred and sixty

four teachers and support staff, 87% of staff said that they use SLMs and 81% of staff said that they produce SLMs. Teachers and support staff use these materials at times across the whole class, and at others with a range of pupils including those with learning difficulties and those who have EAL. Research into the nature of SLMs produced by teacher and support staff for use in mainstream schools has not been undertaken, nor has there been a detailed analysis of this language simplification process.

### **Research Aim**

Given that so many staff are currently producing SLMs and the lack of research into practitioner simplification it seems important to assess the nature of practitioner-produced SLMs, the ways in which they are being used and their effectiveness. This paper examines the first of these, exploring the different approaches and forms of materials when practitioners produce SLMs. This research aims to identify the following questions:

- What approaches do practitioners take when simplifying a text?

### **Methodology**

The research involved a two stage process with two sets of practitioners each undertaking a different set of activities.

**Table I – Professional roles of participants in stages 1 & 2 of the project.**

<b>Practitioner Role</b>	<b>Participants in stage 1</b>	<b>Participants in stage 2</b>
EAL co-ordinators or managers	12	10
Teachers working at least part of their time as EAL support staff	6	9
Teaching Assistants working as support staff	4	2
Teaching staff working in other subject areas	2	10
School/Education Authority advisors	4	5
Sen/Inclusion Staff	0	3
Other teaching staff	7	4
<b>Total</b>	<b>35</b>	<b>43</b>

In 2006, thirty five practitioners were asked to design an SLM based upon a complex text. The SLMs were analysed and approaches identified. In 2007, forty three different practitioners were surveyed to assess whether these were the approaches they would use when dealing with a different complex text. All practitioners were working in London or the South East of England. As can be seen in Table I, the participants in both stage 1 and stage 2 of the project were a mix of teachers and support staff, the majority of whom had particular experience of working with students with EAL.

For the initial simplification task, thirty five practitioners at a Specialist School Trust EAL conference taking place in Hackney, London, were asked to simplify a short text. This task was short and time pressured to reflect the experience of teachers working within diverse, inner city classrooms, given levels of teacher workload (Ballet, Kelchtermans & Loughran, 2006; Bartlett, 2004) and evidence that teachers feel that preparation is the activity for which they have the least appropriate time resource (Menter et al, 2006). This time pressure was something the author had also experienced when

producing materials in a mainstream setting, as well as often working on a few selected short passages from key texts to facilitate access to the curriculum.

The participants were asked to simplify the paragraph for students just moving past the early stages of English language acquisition (NC Attainment target - Step 2/Level 1 (Threshold)). They were told to concentrate on the language and layout they would use and to note images that would be essential. They were told that they would have quarter of an hour to carry out the task (though they could take longer if they wished), but that given the tight time frame they were not expected to create images or to give great detail about them. However the participants were provided with an additional sheet to make brief comments about key factors they focussed upon when approaching the text, factors they chose not to focus upon, and factors that they would typically consider in addition when faced with a text such as this. Thirty three participants completed the task.

An initial analysis was made of the thirty-three submitted texts. There was an initial comparison of length and complexity of overall text, words, sentences and paragraphs, as well as word and phrase frequency. Readability measures, of value as a 'screening device' (Redish & Selzer, 1985.) and as 'reliable indicators of relative difficulty [rather] than absolute difficulty' (Newton, 1990, p109) were used to verify that the texts met with the definition of simplification. The texts were analysed using Gunning's Fog index (which indicates the number of years of formal education that a person requires in order to easily understand the text on the first reading), the Flesch Reading Ease index (Flesch, 1948) and the Flesch-Kincaid Grade Level scores (Kincaid, Fishburne, Rogers, & Chissom, 1975). Comments about key factors and additional factors were also compiled

and examined for potential patterns and conceptual overlaps. Subsequently, four categories of approach were identified and two independent coders were asked to place each of the texts into these four categories or a fifth Not Coded category. This coding was carried with an 85% agreement, where the expected concordance by chance was 0.2709, giving a Cohen's Kappa of 0.792.

Given the limited time allowed to the participants in completing this task and that the activity was not carried out within the class setting, it was felt necessary to have corroboration of the categories identified. In order to do this forty three practitioners were presented with a questionnaire alongside a scenario which defined the work that had gone beforehand and the mix of students within the class. They were also given a range of texts about global warming that would be available to the students and teaching staff. They were then asked to consider, given the limited time and support they might have for preparing and planning, how they would approach a specific resource for the students with EAL in this class to assist them in the task of writing an email to local businesses about the key scientific issue. The participants were required to identify if they would adopt one of the four identified approaches or a different approach entirely.

## **Results -Stage 1**

### **Examining the Simplified Texts**

On initially examining the thirty three texts it was clear that sixteen of the practitioners had not attempted to produce a simplified written text, but focussed upon images and labels and/or additional activities. Seventeen practitioners chose to use simplified

language creating sentences and paragraphs. All these texts demonstrated ‘greater readability’ than the original text across all three readability measures (see Table II). As has been made clear in the earlier discussion, this does not mean that the texts are necessarily more comprehensible, but that they are made up of shorter words and sentences, with fewer passive clauses. On the basis of the original definition of simplification, it seems reasonable to suggest that the practitioners had all produced simplified texts.

**Table II: Readability measures applied to texts**

	<b>Flesch Reading</b>	<b>Flesch Kincaid</b>	<b>Fog</b>
Original text.	55.4	9.6	10.8
Averages of simplified texts	81.1	4.2	6.3
‘Most readable’ simplified texts	99.8	1.5	3.7
‘Least readable’ simplified texts	67.7	6.7	9.2

### **Approaches to the original text**

Whilst seventeen participants attempted to simplify the material with a written text, the rest of the participants chose a different approach. After a detailed analysis of each delegate’s response, four clear approaches emerged.

- Approach 1: Rewrites text - Identifying keywords
- Approach 2: Rewrites text - Supported by images and keywords
- Approach 3: Provides images with keywords and phrases
- Approach 4: Aims to talk about keywords and ideas with supporting images and activities

Approach 2 was the most common approach slightly ahead of Approach 3, with Approach 4 being the third most identified. Approach 4, however was identified less than a third of the number of times as either Approaches 2 or 3 (see Table III).

**Table III: Stage 1 -How the categories were coded**

Category	Description	Identical codings	Percentage
A	Approach 1: Rewrites text - Identifying keywords	2	7%
B	Approach 2: Rewrites text - Supported by images	11	39%
C	Approach 3: Provides images with keywords and phrases	10	36%
D	Approach 4: Aims to talk about keywords and ideas with supporting images and activities	3	11%
E	Not coded: The individual has not carried out the task or has done so in such a way that it is not clear how the learning will be carried out.	2	7%

**Results - Stage 2****Survey Responses**

On examining the survey responses of the forty three participants in Stage 2, Approach 3 was the most commonly identified, followed by Approach 2, and then Approach 4. No one identified Approach 1 (See Tables IV, V, VI). Only one participant identified an alternative approach without making some reference to another approach. Twenty eight (65%) of the participants identified a single category as best describing the approach they would take to the texts (see Table IV).

**Table IV – Stage 2 - Approaches identified excluding multiple choices and comments.**

	<b>Approach 1</b>	<b>Approach 2</b>	<b>Approach 3</b>	<b>Approach 4</b>	<b>Alternative approach</b>
<b>Totals</b>	0	8	13	6	1
<b>%</b>	0	29	46	21	4

There was some scope for interpretation within the responses, however. Some of the participants selected more than one category or made comments which suggested they might also adopt an additional approach. Fifteen participants (35%) identified more than one approach. Seven of the participants selected more than a single category (see Table V).

**Table V – Stage 2 - Approaches identified including multiple choices and excluding comments.**

	<b>Approach 1</b>	<b>Approach 2</b>	<b>Approach 3</b>	<b>Approach 4</b>	<b>Alternative approach</b>
<b>Totals</b>	0	14	18	12	6
<b>%</b>	0	28	36	24	12

In addition, twelve participants made additional written comments, eight of which suggested alternative approaches. If these additional comments were considered then there was a slight increase in the emphasis upon alternative approaches (see Table VI).

**Table VI – Stage 2 - Approaches identified including multiple choices and comments**

	<b>Approach 1</b>	<b>Approach 2</b>	<b>Approach 3</b>	<b>Approach 4</b>	<b>Alternative approach</b>
<b>Totals</b>	0	15	20	13	12
<b>%</b>	0	25	33	22	20

It is worth noting that nine of these comments focus on providing students with writing support and scaffolding, with six specific mentions of a writing frame. Only one comment mentions bilingual support.

## **Discussion**

It is important to consider the nature of the sample and the tasks they were undertaking.

All of the teachers involved in these two research activities had interest in working with

students with EAL, and the majority had considerable experience of doing so. As practitioners they would be expected to have an understanding of the theoretical limitations placed upon SLMs, and the emphasis that is placed upon alternative approaches; and as such they might be more likely to avoid Approaches 1 and 2 in comparison to others. In addition, the nature of the students identified in the initial scenario could be expected to encourage the practitioners away from written texts. However, an inverse driver within Stage 1 of the research process, encouraging the use of Approaches 1 & 2, could have been asking participants to simplify a text. It is possible that this would not have been the approach they would have taken otherwise; though none of those who chose to simplify made this point in their additional comments.

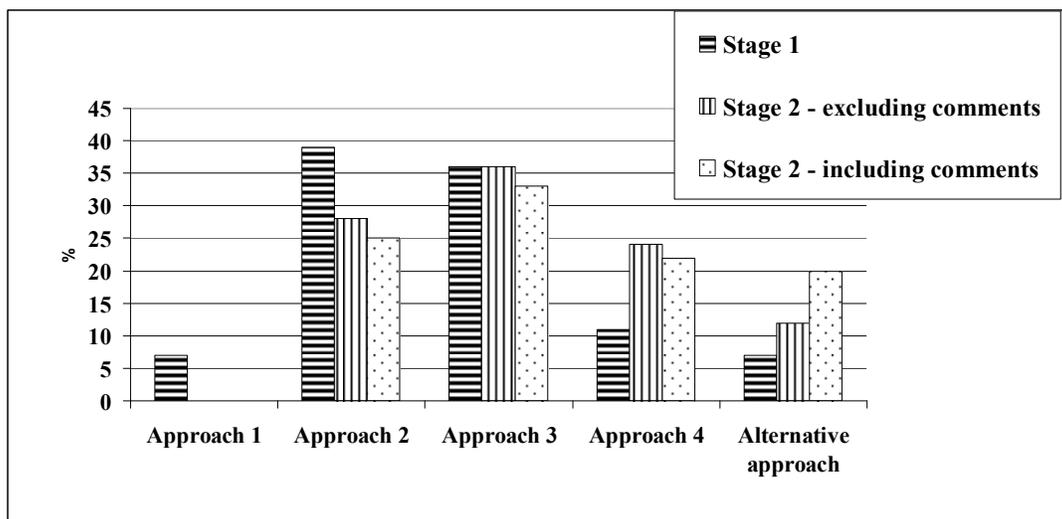
Given that the original texts were produced in a short time span to reflect the pressures of the typical working day it is possible that practitioners would view these attempts as first drafts. In addition, some practitioners may have felt that the setting was more public than they would typically work in. However, those practitioners who did attempt to simplify the text all managed to do so in a manner which met with the agreed definition for SLMs (Rix 2006). This would seem to suggest that these practitioners had well established skills and practices when approaching such tasks and were not negatively affected by the task or the setting.

In seeking to corroborate the approaches identified in the first stage of the research process, the practitioners were presented with a different set of resources. The initial simplification task involved one paragraph of text, whereas the second task involved a

broader set of materials, including four identified texts from a longer document. This introduction of a wider set of materials and a closed outcome activity could have encouraged the practitioners to move away from creating their own texts for the students and towards practices that would facilitate the production of the end product. This possibility is given some support by the number of practitioners who identified the need for a supplying a writing frame.

Despite a range of factors that can be seen as discouraging the practitioners to produce additional written texts as their primary resource, it is clear that in both Stages Approach 2 maintained its popularity among practitioners. It was however more evident when the practitioners were presented with a single text. Comparison of the Stage 1 categories and their selection in Stage 2 does not produce an absolute match (see Figure 1), but it does suggest that when presented with a diverse mix of students the majority of practitioners will adopt one of two approaches, either to rewrite text with the support of images, or use images with identified keywords and phrases.

**Figure 1: Percentage adopting each approach to producing SLMs in Stage 1 & 2**



This research seems to support the notion that many educational practitioners in the United Kingdom, working with the challenge of a diverse learning population, provide SLMs to their students (Barnard & Burgess, 2001; Rix, 2004, 2006). There would also appear to be a strong practitioner commitment to images and the written word. Given the nature of the sample the research suggests that SLMs are being used with students with EAL, but in addition, given that practitioners have previously identified their use with a wider audience (Rix, 2006) and since they are encouraged to use simplified language with people with learning difficulties, it seems likely that this practice would not just be confined to students with EAL.

Given the negative impact that many suggest that SLMs can have (Mishan, 2005; Larsen-Freeman and Long, 1991; Honeyfield, 1977; Klare, 1963; Chalke, 1958) it seems important that research is carried out into the impact of practitioner produced SLMs, to see if they have the positive impact that teachers and others feel they may have (Keshavarz, Atai, & Ahmadi, 2007; Rix, 2006; Abedi, Lord & Plummer, 1997). This current research provides a useful model upon which such research can be based. It would seem reasonable to regard Approaches 1, 2 and 3 as three approaches to SLMs, while Approach 4 and Alternative Approaches represent the broad spectrum of other diverse learning experiences which might be described as authentic and contextualised. It is of possible significance that these last approaches were the least likely to be adopted in both stages of this research process, despite their theoretical capability to provide greatest access for the widest population.

This strong reliance upon Approaches 2 and 3 can provide a useful platform for further research into the role of SLMs. If these are the two main approaches adopted by teaching staff, then assessment of the effectiveness of SLMs needs to be framed around their operation.

### **Conclusion**

This paper is based on the understanding that many practitioners are currently producing SLMs, yet there is a lack of research into practitioner simplification. It seems important to assess the nature of practitioner-produced SLMs, the ways in which they are being used and their effectiveness. This paper has examined the first of these issues, exploring the different approaches practitioners take when simplifying a text. Through an examination of practitioner texts and their opinion of how they would approach a learning task there seem to be two dominant approaches which can be considered to result in simplified language materials; one in which the images support the text, and the other in which the text supports the images. This model of SLMs could provide a suitable tool for describing and discussing SLMs, and act as a platform for assessing the teachers' folk view that SLMs enhance access to, and comprehension of, the curriculum.

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