RETHINKING ONLINE READING EXERCISES: CONTENT VS LANGUAGE

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Abstract

This paper examines problems among Chinese-speaking students in the Macao Polytechnic Institute's School of Business in understanding the content of authentic texts they read. Since September 2006, students have read and answered questions online on 14 additional texts drawn from textbook-supplementing materials. But in the 2009 mid-term English examinations, 174 third-years averaged 7.2/15 on reading comprehension. Despite high compliance, the examination results have questioned the effectiveness of students' extra online reading. Genres are relevant: textbooks and news reportage differ from narrative writing. Comprehension problems are analysed in detail, before also considering how observed behaviour may relate to effective online learning. The purpose/objective of this paper is to reassess the type of reading exercises that may be effective for independent online reading to improve Chinese students' reading skills and, more importantly, their understanding of the content read.

Introduction: Specific Reading Needs — The Problem

"The reading skill is of no practical use unless it enables us to read texts we actually require for some real life purpose" (Nuttall, 2000, p. 31). To use effectively the wide range[1] of international editions of American textbooks in MPI's School of Business, our students need both to read them and understand their content (Levine, Ferenz, & Reves, 2000; Spor, 2005).

Textbook Writing Style

University textbooks introduce novices to new concepts; summarise the major concepts, theories and/or methods of a particular academic discipline; or interpret facts within one or more specific theoretical frameworks. As Spor (2005) notes, even school textbooks convey information rather than telling stories and this writing genre causes difficulties for

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[1] Social science (economics, sociology, psychology); business methods (marketing, management, public relations); and accounting and internet technology.

weak readers even in their mother tongues. Although many university textbooks use plain English,[2] bullets and the short paragraphs found in news reports, summarising language (including listing techniques and complicated in-text referencing), and technical definitions are basic to the genre, which is sufficiently different from popular narrative literature that David K. Schneider has created an online (American) Textbook Writing Tutorial for Edutech Wiki.[3]

Because university textbook writing is efficient and economical summary, its style is 'dense'. Paragraphs notably lack topic sentences: related core information is instead packed into complex sentences. Indeed, in authentic texts more generally, it was already clear by the mid-1970s that a *maximum* of 50% of all paragraphs begin with topic sentences (Johns, 1988, p. 81), on which English language teaching still relies very heavily.

Textbooks and Language of Instruction (LOI)

In our School, two languages of instruction exist: the largest is English; Chinese (spoken Cantonese) has been declining steadily. However, as Table 1 shows, irrespective of the LOI, virtually all the prescribed textbooks are written in English, not Chinese: of the total of 102 textbooks prescribed for the 2nd semester of 2009, less than 4% were in Chinese; and for the Chinese LOI stream, the figure was less than 10%. It is therefore absolutely essential to their academic success that all of our students, from the very beginning, are able to comprehend their textbook content in English: in the first as well as the final year, no Chinese textbooks were prescribed for either LOI.[4]

However, compulsory EFL courses are not tailored to specific individual or collective student needs. Irrespective of students' individual linguistic competence on entry, English language courses start at pre-intermediate and reach advanced level only in the fourth and final degree year. MPI's reading performance objectives for upper intermediate level expect students at the end of the third year to "read a wide range of long, complex texts from social, professional or academic life. . .quickly enough to cope with an academic course," but only expect "most of the message" to be comprehended, "with noticeable loss of detail and subtlety."[5]

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[2] http://www.plainenglish.co.uk/files/howto.pdf
[3] http://edutechwiki.unige.ch/en/Textbook_writing_tutorial
[4] I am grateful to the School of Business for providing these figures.
[5] *Performance Objectives & Syllabus Guidelines for 5 Levels of English Language Courses Conducted at Macao Polytechnic Institute* (2005, p. 55).

Table 1: MPI School of Business, 2nd semester 2009
Languages of prescribed textbooks* in different Languages of Instruction (LOI)

Students enrolled in	Language of Instruction (LOI)			
	English N %		Chinese N %	
Year 1	80	60.2	53	39.8
Year 2	84	58.7	59	41.3
Year 3	104	59.1	72	40.9
Year 4	46	63.0	27	37.0
Total	314	59.8	211	40.2
Language of prescribed textbooks	English N	Chinese N	English N	Chinese N
Year 1	19	0	10	0
Year 2	18	0	8	2
Year 3	12	1	11	1
Year 4	13	0	7	0
Total	62	1	36	3

*Excluding all language courses (Chinese, English, Portuguese) and recommended texts

One Attempted Online Solution

From September 2006 to January 2010 all upper-intermediate students were required to read, on MPI's online teaching platform (WebCT, later Blackboard), one extra compulsory text for each of their 14 textbook units and then to answer auto-marked questions. Both texts and questions were published supplements to the textbook — in contrast to our normal practice of sourcing authentic texts for their reading examinations from news media.

Compliance was good[6] but reading these texts did not noticeably improve students' understanding of authentic news report content in examinations (contra Levine et al., 2000, p. A7). So, following Zhang's observation that reading among Chinese EFL students remains under-researched (2002, p. 73), this paper attempts to explain why, using examination results to diagnose what, exactly, our students' reading comprehension problems are.

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[6] Deleted past data are irretrievable from Blackboard, which requires deletion every year so that new students can access these online tests. But in the first semester of 2009–10, only 120 (13.6%) of 882 exercises were not done.

The Research

Data from March 2009 mid-term examinations were used to assess what students halfway through the second of two semesters in upper-intermediate English had understood of the content they had read.

Research Subjects

The research subjects were 174 third-year students in 10 separate upper-intermediate English classes taught by five different lecturers[7] (including myself) using the same syllabus and textbook.

Methodology

Five sets of similarly-structured and identically-sequenced questions focussed on content issues in five different unseen reading texts of virtually identical length (430-448 words) and comparable difficulty. These texts were edited from online business news reports dealing with financial issues related to Unit 9, *Raising Finance*, in the prescribed textbook (Cotton et al., 2006). Each text and question set was used by 2 of the 10 classes at different exam times.

Caveats

1. Questions must be understood by examinees as the examiner intends them to be understood. High-frequency vocabulary and grammatical structures which had been specifically taught tried to obviate misunderstanding of the questions themselves. Whether this strategy worked for the weakest students is open to question.

2. Poorly phrased, unclear, or otherwise ineffective questions are incapable of validly testing comprehension of conten**t** read.

3. Answer options must never replicate text wording, since understanding what has been read is not the same as locating exact words/phrases in the text.

4. Question and answer options to test content comprehension should avoid text sequencing, listing cues, and other purely linguistic devices.

The Questions: Form and Content

Of the 15 marks, 3 were allocated to true/false options (1 mark each), placed after the six multiple choice questions earning 2 marks each.

All true / false options tested the students' understanding of facts in the text and used high-frequency replacement vocabulary (often different word forms, reversals, or simply-

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[7] I would like to thank my colleagues Jane Lung, Raymond Pang, Tony Steel, and Carissa Young for allowing me to capture data from their classes' mid-term examination scripts.

calculated proportions or numbers). The last true/false option also required students to isolate one fact from others related to it in the text, and these questions resulted in the fewest correct answers.

The six multiple-choice questions each had five options, only one of which was correct. The first two questions were identical on all papers: Which of the following best describes the general argument in this whole report? What is the new fact in this news report? Question 3 asked for the most appropriate meaning of an important but previously-unknown concept from its context. Question 5 focused on context-specific replacement vocabulary. Questions 4 and 6, like the true/false set, focussed on identifying facts correctly.

Findings

Table 2 gives the overall results by different sections for the 10 classes, while Table 3 compares the reading comprehension results for each pair of classes using the same reading text and questions. (In all the following tables, red font indicates fail marks.)

Table 2: Overall mid-term results ranking of 10 classes by Reading Comprehension (RC), Vocabulary (V), Listening (L) and Grammar)G)

RC/15	V/15	L/15	G/15	Tot/60	LOI
8.1	12.5	11.7	11.5	43.9	C
7.0	10.1	11.4	12.0	40.5	E
7.8	8.1	12.1	11.2	39.1	E
8.0	7.9	11.1	11.6	38.5	E
8.4	7.0	10.5	11.2	37.0	E
9.0	7.1	10.1	10.2	36.3	C
5.8	7.9	10.8	10.2	34.8	C
6.8	6.9	10.3	9.4	33.4	E
5.7	6.1	10.1	9.0	31.0	C
5.0	5.5	10.3	8.7	29.5	E
7.2	**7.9**	**10.8**	**10.5**	**36.4**	**-**

The average reading mark was a fail (7.2/15) in a range of 0–15. The best class averaged 60%, the worst 33%.Table 3 reveals some distributional nuances. Overall the true/false questions were answered correctly by 60.9% of students, with 64.4% answering the first two correctly. In comparison, only 45.0% of the multiple-choice questions were answered correctly.

Table 3: Correct answers to reading comprehension questions, by class

Text ID	N	MC1	MC2	MC3	MC4	MC5	MC6	T/F7	T/F8	T/F9	Tot/15
1	13	8	2	4	12	2	8	6	8	5	7.0
1	13	7	5	4	5	3	5	5	9	5	5.8
2	18	9	9	7	6	3	2	10	12	9	5.7
2	19	8	2	7	11	0	4	12	13	5	5.0
3	20	17	5	16	2	4	15	20	10	12	8.0
3	22	22	7	16	2	6	13	20	18	14	8.4
4	19	10	3	12	3	13	16	11	9	14	7.8
4	16	11	3	5	1	10	12	7	7	12	6.8
5	17	4	2	15	14	1	16	9	13	12	8.1
5	17	13	5	12	10	8	13	12	13	6	9.0
Total	174	109	43	98	66	50	104	112	112	94	71.6

The first multiple-choice question was answered correctly by 109/174: 62.6% met MPI's performance target of a broad comprehension of what was read. But less than 25% (43/174) answered the second multiple-choice question correctly, suggesting that our students may have problems with distinguishing specific facts from other facts using time qualifiers, including adverbs, tenses and fact sequencing. When they wrote their mid-term examination, they had not formally studied news headlines, so lacked the most important clue to answering Q2 and had to rely on extracting information from the text.

Q3 elicited the third best result in the multiple-choice set, with 98/174 able to identify the correct answer. However, Q5, requiring the replacement of context-specific vocabulary, was answered correctly by only 50/174, suggesting that contextualised synonym vocabulary remained a problem for students who normally relied on direct translation.

Regarding the fact-oriented answers, Q6 required students to look at the facts from a different, reciprocal angle (for example, the difference between lending and borrowing, being indebted rather than a creditor), while Q4, like the most difficult true/false option, required students to identify a specific fact, or facts, among many: While 94 managed an either/or identification, only 66 coped when the options were expanded from two to five.

Table 4 shows the comparative results of grouping students in the top (13–15) and bottom (0–3) mark quintiles and Table 5 their individual reading results.

Table 4: Reading comprehension results compared to all results for 8 students in the top
mark quintile and 11 in the lowest mark quintile

RC rank	RC/15	Class RC Ave	V/15	L/15	G/15	T/60	Class Tot Ave
1	15	8.0	6	12	14	47	38.5
2	14	9.0	7	8	10	39	36.3
3	14	9.0	10	15	13	52	36.3
4	13	9.0	5	10	11	39	36.3
5	13	9.0	9	5	13	40	36.3
6	13	8.4	8	13	15	49	37.0
7	13	8.1	11	13	13	50	43.9
8	13	6.8	12	13	14	52	33.4
s-tot ave	13.5	8.4	8.5	11.1	12.9	46.0	37.3
164	3	5.8	3	12	7	25	34.8
165	3	5.0	4	9	7	23	29.5
166	3	5.0	3	11	7	24	29.5
167	3	5.7	8	11	9	31	31.0
168	3	6.8	5	12	6	26	33.4
169	3	6.8	7	11	8	31	33.4
170	3	8.0	2	6	9	20	38.5
171	2	5.0	5	8	11	26	29.5
172	2	5.0	6	9	7	24	29.5
173	1	6.8	3	10	5	19	33.4
174	0	5.0	6	10	11	27	29.5
s-tot ave	2.4	5.9	4.7	9.9	7.9	25.1	32.0

Students in the top mark quintile came from only five of the ten classes, half of them
from one single class, and altogether used only three of the five different reading texts.
Although students in the bottom mark quintile were spread over six of the ten classes,
five came from one class and three from another. At least eight had failed the course once
or more before.

One surprising finding from the eight most competent readers was that three failed their
vocabulary section, while another barely passed. Only three had vocabulary results which
matched their reading results.[8] In contrast, their grammar results were much more
comparable with their reading, which accords with Zhang's (2002, p. 82) earlier findings.

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[8] Among many possible reasons for this unexpected discrepancy, is that even the
most competent readers might not yet have committed newly-learned vocabulary to long-
term memory.

In the lowest mark quintile, six students failed the one reading text for which no student achieved top-quintile marks, while three failed a different text on which a classmate made the top mark quintile. Averages for bottom-quintile reading (2.4/15) and vocabulary (4.7/15) were both fails. In addition, the tail-enders barely passed the grammar section, averaging 5/15 marks (33%) below the top quintile and confirming that, when vocabulary and grammar are both weak, successful reading will not occur.

Table 5: Individual reading results by question for 8 students in the top mark quintile and 11 students in the bottom mark quintile

Text	Rank	RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8	RC9
3	1	5	1	2	4	5	3	T	F	T
5	2	4	2	2	1	3	5	T	F	F
5	3	4	2	2	1	3	5	F	F	T
3	4	5	1	2	4	4	3	T	F	T
5	5	4	5	2	1	3	5	T	F	T
5	6	4	1	2	1	3	5	T	F	T
5	7	4	3	2	1	3	5	T	F	T
4	8	5	3	2	3	1	3	T	F	T
	S-tot	8	5	8	7	7	8	7	8	7
1	164	1	3	2	2	1	4	T	T	F
2	165	5	5	2	1	3	4	F	T	T
2	166	3	3	5	5	1	3	F	T	T
2	167	3	2	4	2	3	3	T	T	F
4	168	3	5	5	1	2	3	F	T	T
4	169	4	5	5	1	3	3	T	F	T
3	170	2	3	4	5	2	3	T	T	F
2	171	5	2	4	1	3	4	T	F	F
2	172	3	2	1	1	5	5	T	T	T
4	173	3	5	4	2	5	1	F	F	F
2	174	4	3	4	1	1	4	F	F	T
	S-tot	0	1	0	1	1	3	5	7	4

The most competent readers were 100% successful in answering multiple-choice questions 1, 3 and 6 and the most difficult true-false option, but had more difficulty identifying the new fact in the news report (Q2). Within the lowest mark quintile, the two easier true/false options were answered correctly by a bare majority, but none got the 'easiest' multiple-choice questions (1 and 3) correct.

Why Was Extra Online Reading Ineffective?

Zhang (2002) has noted that low-proficiency Chinese readers use bottom-up, conscious processing of individual English words and decoding of specific syntactical structures, using most of their available working memory (Phakiti, 2006) and slowing down both reading speed and overall comprehension. However, behavioural factors are also important.

Time Management

Many students may actually have read only 20–25% of the extra 14 online texts. Under continuous pressure from heavy course loading, students seek the most time-efficient methods to comply with requirements. Informal groups rotate among their individual members responsibility for output which is used by all. When this strategy is used for reading assignments, usually by weaker readers, only one member of each group actually reads the text. Most of my colleagues regard this as 'cheating' and would prefer directly to control student behaviour in the classroom, because the opportunity for independent online learning may actually reinforce such behaviour and the existing feedback loop linking lack of reading to ineffective reading.

So the online reading tests have now been withdrawn.

Specific Reading Strategies

Students' concern with time efficiency eschews multiple reading of texts. Skimming to grasp the overall argument and identifying but not immediately translating unknown words are both routinely resisted by all but the most proficient readers in my advanced reading classes. Less than 40% of these students (who were among the 2009 research subjects) have used English online dictionary links (available on Blackboard) in class this semester. When weak readers have access to computerised workstations, they use Google.cn or Yahoo.cn instead of their electronic translators.

Their classroom behaviour often suggests that weak readers[9] have never previously been taught effective reading strategies (skimming; scanning; preparatory anticipation and questioning; identification of unknown words and syntax for later clarification in detailed reading; interpretative, analytical, synthesising and evaluative skills for critical reading).[10] When these skills are known to have been taught (by myself), they are rarely practised (even under my classroom supervision). For example, only proficient readers collect and read their free individual copies of English-language newspapers provided by MPI. And among 126 third-year School of Business students in the first semester of 2009–10, 15 used Blackboard's online links to access the *Wall Street Journal,* 18 the

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[9] Especially local Macao students; those from the Chinese mainland generally have better-developed reading strategies and skills.

[10] Detailed in study guides from the University of Otago and elsewhere.

Financial Times and 20 *Macau Business*: there was likely significant overlap among these users.

Genre

Finally, providing online more reading practice on narrative texts, followed by questions that were not focussed on text content, would not have helped either proficient or weak readers to understand facts written in a different style.

Reflections on Possible Ways Forward

The skew to fail marks shows that three-quarters of the way through their upper intermediate year, three-fifths of our third-year students were barely meeting MPI's performance indicators for reading at this level. Most did not understand enough of the factual content in previously-unseen texts to pass the reading section of their mid-term English examination. By implication, they were probably also unable to cope with their other course textbooks written in English, which could explain in large part the high failure rate in our School.

What would be a more effective online reading practice strategy, given that students' self-defined English needs are instrumental and educational, not social?

Firstly, the needs of weak and proficient readers should be differentiated.

Liu, Chen, and Chang (2010) have recently found, in a parallel with Johns' (1988) older 'content slot' classroom approach, that computer-assisted concept mapping (CACM) was, over at least 10 weeks, successful in improving weak but not already-proficient Chinese EFL students' reading strategies and their understanding of relationships among ideas. CACM seems to have worked, they think, partly by enforcing the strategies of listing (main points), drawing inferences, elaborating, evaluating and reviewing; and partly by enhancing weak readers' self-confidence. However, for our needs CACM would also require testing using textbooks or news reports, since the materials used by Liu et al. were narrative articles from popular magazines.

Despite that *caveat*, in my own classrooms, I have observed proficient readers using the top-down, metacognitive reading strategies of native readers (Phakiti, 2006). In contrast, weak readers behave in ways that obviate learning objectives by taking the shortest, in their view most time-efficient, cuts to bypass the efficient reading strategies that they have not mastered.

Secondly, such differentiation requires prior diagnosis of reading skills — of the detailed kind undertaken in my examination research — before students are given access to different online readings. Among many practical difficulties with such diagnosis at the usually chaotic start of a new academic year is finding the time to undertake it and analyse the results expeditiously in order to allocate students individually to the most suitable online option.

So, thirdly, assuming the practical difficulties can be overcome, what differentiation might be more appropriate than a 'one-size-fits-all' approach? My ineffective attempt to reinforce reading practice online, together with classroom observations, have taught me that online reading for weak readers needs to be designed to enforce efficient reading techniques so that they cannot be evaded; and that technical content for all will best be grasped through a clear focus on reading-for-content. More sophisticated delivery mechanisms would therefore be required than most shelfware platforms offer.

For readers who will use online learning opportunities effectively, providing two or more texts with inter-related content and asking content-related questions that require reference back to both or all texts can be expected to improve their reading and comprehension skills and motivate them to read more.

For weak students still focussed on the translation of individual words, providing both lexical and syntactical glossaries for texts, or including a dictionary search engine on the text page, is very unlikely to prevent direct translation. Instead, more prescriptive, pre-programmed and timed access in a non-manipulable learning sequence — of the kind I have already suggested in a different context (Cheater, 2009) — would probably be more effective.

But this would require special programming beyond language teachers' skills and could not be delivered on shelfware platforms such as Blackboard. Providing effective online tools for reading — or perhaps any skill acquisition and reinforcement — may also require motivating staff even more than students.

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