

Variations in Composing Behaviours of Academic ESL Writers in Test and Non-test Situations

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While composing process research has revealed great variation among writers and among types of writers, research has largely ignored fluctuation in writing behaviours of a single writer. This study contrasted both texts and behaviours of six ESL writers as they wrote a practice essay test with their texts and behaviours in an actual English composition proficiency examination.

Fluctuations were observed in the complexity of the texts generated, in the allocation of time to various activities, in the writers' pausing behaviours, and in the

type of alterations they made while inscribing. In addition, the six writers displayed six unique profiles.

The findings suggest that assessment practices need to distinguish writing problems from language problems and that instructional practices need to attend to composing behaviours, accommodating students who are apprehensive about writing or anxious about tests. The findings reiterate the long-standing suspicion about the validity of assessing writing skill through a single text.

Early studies of writing variation conclusively documented fluctuation in the quality of text generated at different times by a given writer (Kincaid 1953, Anderson 1960). Such fluctuations are common knowledge to experienced writers and composition teachers alike.

The study reported here derived from recent experience in English programmes for foreign students at a large Canadian university where students with high levels of general proficiency in English often fail to meet the university's writing proficiency requirements contrary to predictions by their ESL instructors. The study explored the possibility that the pressure of an examination situation was related to variation in writing behaviours for such writers. The process-tracing techniques employed in this study enabled observation of composing behaviours with the focus on what the writers *did* in the two situations rather than on what they *wrote*.

The Research Questions

Among the questions addressed by this study were the following:

What observable differences were there in the quality of text produced in a non-test situation compared with the quality of text produced during a test for proficiency in written English?

What differences were observed in planning, drafting, and revising

behaviours, in the ways the writers allocated their time, and in the frequencies, durations, and locations of pauses while they composed in the test and non-test situations? What differences were evident in attention to mechanical and lexical features of text versus matters of a conceptual or discourse nature?

Finally, were relationships evident between observed differences in the behaviour of these writers in the examination and non-test situations and the levels of text anxiety they reported?

Context of the Study

Concurrent with the shift in recent decades from a research interest in pedagogy and text quality to exploration of composing processes has been a growing interest in understanding process problems which inhibit effective production of text. Among the inhibiting phenomena identified have been inappropriate attention to language form (Shaughnessy 1977, Perl 1979, Zamel 1982), "writing apprehension" (Daly & Miller 1975), and "writer's block" (Rose 1980, 1984).

In ESL composing, Jones (1985) concluded that writers may rely to different degrees on the "monitor" (Krashen 1976); that is, monitor "overusers" display more frequent and longer pauses during composing and perform fewer revisions than "underusers." Recent evidence supports these conclusions, suggesting that "excessive monitoring for grammatical accuracy can be detrimental, especially if students are trying to apply complex rules which are not yet part of their basic L2 competence" (Adamson 1989, cited by Gungl and Taylor, p. 239). Roen et al (1989) likewise conclude that focus on form most likely raises the level of ESL students' writing apprehension, leading to cognitive overload and preventing ideas from getting on paper.

In studies of "writing apprehension," (the tendency of certain individuals to be generally anxious about writing,) both in English as a first language and in ESL composing, a number of findings have emerged. Apprehensive academic writers were found to favour disciplines with low writing demands (Daly and Shamo 1978). Selfe (in Rose 1985) found an apprehensive writer spent little time in pre-writing activities, hurrying through the inscribing in order to get something onto the page, and Fox (1981) found that a collaborative workshop approach reduced writing apprehension. Composition tasks on language tests were found to be particularly stressful for anxious ESL writers (Madsen and Murray 1984). Fayer (1986) found that writing apprehension increased for writers composing in a second language, and other research found that premature editing was a problem for freshmen ESL writers especially (Betancourt

and Phinney 1987). Writing apprehension was found to be a real problem among ESL writers (Gungle and Taylor 1989).

Another debilitating phenomenon, "writer's block," was found to involve negative attitudes to writing, lack of strategies for organizing complex material, and tendencies to edit prematurely (Rose 1980, 1984). Harris (1985) identified blocking writers of five different types: the "indecisive writer," the writer overly concerned with "what is right," the "incessant editor," the writer "misguided about a useful strategy," and the "incessant rereader."

Throughout the research in composing processes, several types of behavioural variations have been observed. These variations have typically been among different individual writers (such as those observed by Harris) or between groups of writers (such as the skilled and unskilled writers observed by Perl). Raimes (1985) concluded, that no clear profile of the unskilled ESL writer emerged. Arndt (1987) found differences among her six Chinese writers in the ways they approached the writing task, and Lay (1983) found differences in approaches to pre-writing activities. Jones and Tetroe (1986) noted differences in planning processes, and Johnson (1985) found differences in the use of large-scale plans and in ability to respond to all parts of a rhetorical problem. Brooks (1985) reported variation among writers with regard to audience and in the time used to complete a writing task.

These research findings and observations that certain ESL writers produce English text of inconsistent quality prompt the question: Do such writers behave differently while writing two essays in English—one of which is an actual examination affecting academic status? By closely observing six such writers composing under both test and non-test conditions, the present study extends the understanding of ESL composing processes by examining variations in the behaviours of six writers which may account for the fluctuation in the quality of text they produced.

The Study

The study was both descriptive and exploratory in design and employed standardized instruments as well as video-taped protocols and post hoc interviews commonly employed in composing process-tracing research (Matsuhashi & Cooper 1978, Rose 1980, Schumacher 1984, Yau 1989).¹

The Subjects

Subjects were selected from a population of 70 graduate and undergraduate students on conditional academic status while taking a required,

non-credit, cost-recovery ESL writing course preparing them for a 300-word essay examination. Most often, a student taking the required ESL course for the first time fails the exit essay requirement which the students often perceive to be a needless bureaucratic impediment to acquiring full academic status.

From this population, six students volunteered to participate in the study. They had recently failed the ESL essay examination contrary to their instructors' predictions and had been granted permission to challenge the course by writing the exit examination at the end of the subsequent course. As reported in Table 1, the subjects were from a variety of language groups and were diverse in age, previous English studies, and length of time in Canada. They also varied in their scores on the Test of English as a Foreign Language (TOEFL). Frank, Liba, and Shiro² reported greater apprehension about writing than did their ESL peer group. Frank and Kei reported greater anxiety about tests in general than did their peers.

Table 1
Profiles of Subjects^a

Subject	Age	Sex	L1	Time in Canada	ESL Test Failures	English Studies (Years)	TOEFL Score	Appre- hension (z) ^c	Anxiety (z) ^b
Frank	25	M	German	8 months	2	8	590	+0.38	+0.75
Kei	20	M	Japanese	5.5 years	6	4	600	-0.27	+0.38
Wang	18	M	Cantonese	7 months	2	13	630	-0.81	-0.10
Jolanta	31	F	Polish	6.5 years	3	5	561	-0.54	-0.95
Liba	37	F	Czech	3 years	3	6	545	+2.57	-1.91
Shiro	24	M	Japanese	7 months	2	12	523	+0.91	-1.43

a. Subjects reporting the greatest changes in anxiety between the two writing situations are listed in initial positions in all tables to facilitate visual comparisons on various measures.

b. Compared with ESL peers on Alpert-haber Achievement Anxiety Test (N = 51). (Because the language of the 19 items on this Likert-type questionnaire was confusing, the items were modified and correspondence of the revised items checked by four ESL specialists who confirmed that the essence of the original items was preserved in the modifications.)

c. Compared with ESL peers on Daly-Miller Writing Apprehension Instrument (N = 63).

Manipulation of Writing Situation Variables

To ensure that the Situation 2 examination task was no more difficult than the non-test Situation 1 task, the 120-minute period officially allocated to the examination was reduced to 100 minutes for the non-test situation. For the same reason, topics provided for the non-test situation were intentionally more difficult than those provided for the examination. (See Appendix 1.) Subjects reported that the examination topics were easier, and nine ESL composition instructors and 40 advanced ESL writing students ranked the non-test topics as being more difficult than the examination topics. (These efforts to make the test situation easier entailed a research risk that the subjects would produce higher quality examination texts as a result.)

The Writing Tasks

Before beginning the writing tasks, subjects completed the Spielberger State Anxiety Inventory (1968) questionnaire to measure the degree to which they were anxious about the particular situation. They wrote the non-test and examination papers several weeks apart, in isolation with only the researcher present. The video camera focussed only on the paper being written. During video taping, tapes were regularly switched in order to record three 10-minute segments from the beginning, middle, and end of the writing tasks for use in the stimulated-recall interviews immediately following the writing tasks. The post hoc interviews were audio taped and ranged from 45 to 60 minutes long.

Text Quality

The texts were compared according to differences in quality as assessed by the ESL course procedures which involved a minimum of two markers who deducted points for textual weaknesses classified as content, organization, sentence structure, grammar, diction, and mechanics. (See Appendix 2.) The texts were also compared for differences in syntactic complexity according to T-unit length (Hunt 1970).

Process Tracing

Process-tracing procedures enabled comparisons of time spent in pre-writing, drafting, and post-draft activities, durations, frequencies, and locations of pauses during forward inscribing, and frequencies of various types of changes made in extant text during inscribing. For this purpose, samples of the inscribing periods involving approximately 100 words of each text generated (approximately one-third of the minimum length

required) were selected. Care was taken to ensure that the periods sampled were indeed instances of inscribing and not of revising or copying previously generated text.

Pauses were classified according to length: 10–29 seconds, 30–59 seconds, and those exceeding 60 seconds. Pauses were also classified by location either within clauses or phrases or outside clauses or phrases. Alterations (changes in extant text) during the inscribing periods sampled were classified as High Level (Conceptual or Discourse) or Low Level (Mechanical or Lexical). Instances when the writer reformed letters were classified as Cosmetic.

Coding Agreement

In coding the pauses and alterations, agreement checks were conducted between classification by the researcher and a TESL graduate student. Inter-rater agreement was .93 for pause locations and .91 for alteration level.

Data Presentation and Analysis

Comparisons mainly involved Spearman rank correlations on the various measures used and ratio comparisons between data collected in the two situations. The small number of subjects often resulted in comparisons that were not statistically significant at the .95 or .99 levels of confidence³, but are nonetheless of interest in an exploratory study such as this.

Results: Anxiety

As Table 2 reports, four subjects, Frank, Wang, Kei, and Liba, indicated increases in state anxiety from Situation 1 (the non-test) to Situation 2 (the examination) ranging from z-score increases of +.12 to +1.70. Scores for Jolanta and Shiro indicated decreases in anxiety levels of .71 and .19 respectively. Subjects indicating the greatest increases, Frank, Kei, and Wang, who also scored high on either the Writing Apprehension and Achievement Anxiety instruments, were regarded as High Anxious and the others as Low Anxious for further comparisons.⁴

Text Quality

As Table 3 indicates, text quality for the two situations varied greatly according to the course assessment. Variation in quality ranged from a decrease of 18 per cent in the case of Wang to an increase of 40 per cent in the case of Shiro. The “composition fluctuation” documented by Kincaid and Anderson was clearly evident in these situations.

Table 2
Scores on Spielberger State Anxiety Inventory

Subject	Situation 1 Non-Test		Situation 2 Test		Difference in z	Rank
	Raw	z	Raw	z		
Frank	35	-0.15	52	+1.55	+1.70	1
Kei	45	+0.85	48	+1.15	+0.30	3
Wang	40	+0.35	51	+1.45	+1.10	2
Jolanta*	53	+1.19	43	+0.35	-0.71	6
Liba*	37	+0.15	42	+0.27	+0.12	4
Shiro	24	-1.24	26	-0.15	-0.19	5
Means:	39.00		43.67			
S.D.	9.78		9.56			
Norms:	Mean	36.47				
	S.D.	10.02				
	N	324 College Students				
*Females:	Mean	38.76				
	S.D.	11.95				
	N	531 College Students				

Table 3
Scores and Variations in Text Quality

Subject	Text 1 (Non-test)	Text 2 (Test)	Variation		Rank
	Raw	Raw	Raw	%	
Frank	58	64	+6	+ .10	2
Kei	45	40	-5	-.07	4
Wang	79	65	-14	-.18	6
Jolanta	55	51	-4	-.07	3
Liba	53	41	-8	-.15	5
Shiro	48	67	+19	+ .40	1

Syntactic Complexity

For all subjects, mean T-unit length for texts produced in the examination situation was significantly greater ($\rho = .94$ where the critical value for $p < .05$ is .83) than in the non-test compositions, on average, an increase of 14 per cent (from 15.97 to 18.14 words). In addition, as Table 4 indicates, the increase in the complexity of text for one writer was proportionate to increases by the other five writers; that is, rankings for syntactic complexity were similar in the two situations except for those writers in first and second rankings (Kei and Wang).

Within subjects, however, increases in syntactic complexity from the first to the second situation varied greatly. Mean T-unit length increased from three per cent (for Frank and Wang) to 29 per cent for Jolanta.

Table 4
Mean T-Unit Length

Subject	Text 1			Text 2			Variation (%)	Rank
	Mean	n	R	Mean	n	R		
Frank	11.84	37	6	12.21	33	6	+ .03	5.5
Kei	18.07	15	2	22.95	22	1	+ .27	2
Wang	22.28	18	1	22.94	16	2	+ .03	5.5
Jolanta	16.50	26	3	21.30	23	3	+ .29	1
Liba	13.81	26	4	15.19	37	4	+ .10	3
Shiro	13.32	31	5	14.23	26	5	+ .07	4
Means:	15.97			18.14				

A Spearman correlation of rankings for T-unit increases and increases in anxiety suggested (although not statistically significant) a moderately high inverse relation ($\rho = -.73$); that is, the greater increase in anxiety experienced by the writer, the lower the increase in complexity of the writing produced.

On the other hand, the third High Anxious subject, Kei produced an examination text 27 per cent more syntactically complex than his Situation 1 text. Perhaps this was because, as he revealed in the Situation 2 interview, for the examination composition he chose a topic on which he had previously written several times and thus was able to devote a greater amount of attention to syntactic aspects than to generation and organization of content.

Syntactic Complexity and Text Quality

A correlation of rankings for increase in complexity and text quality indicated a low to moderate inverse relationship ($\rho = -.36$). Little relation was evident between an increase in syntactic complexity and improvement in text quality.

Time Allocation

The proportion of the total time spent by these writers in pre-writing, inscribing, and post-drafting activities is presented in Table 5. A Spearman rank correlation of proportions of time spent in pre-writing in the two situations indicated a low to moderate relationship ($\rho = .37$). This suggests that the writers allocated their time differently to the three activities in the two situations. However, when the proportions were removed for Liba (whose Situation 2 pre-writing time was minimal because, as she said, she knew immediately what she would write), the correlation was statistically significant ($\rho = .90$, where the critical value for $p < .05$ with $n = 5$ is .90). With the exception of Liba, these writers allocated time to pre-writing activities in similar proportions in the two situations.

Comparisons of rankings of the six writers for inscribing and post-draft activities in the two situations were highly significant ($\rho = .943$, where the critical value for $p < .01$ is .943). Clearly, these writers allocated their time to the three activities in similar ways in the two situations.

Table 5

Proportion of Time Spent in Pre-Writing, Inscribing, and Post-Drafting Activity
(Percentage of Total Time)

Subject	Situation 1			Situation 2			Variation S2/S1
	Pre	Inscribing	Post	Pre	Inscribing	Post	
Frank	7	46	46	5	40	55	-.13
Kei	48	50	2	43	54	3	+.08
Wang	13	39	49	11	31	58	-.21
Jolanta	17	81	2	18	80	2	-.01
Liba	19	79	2	3	82	15	+.04
Shiro	11	66	23	16	62	23	-.06

Anxiety and Inscribing Time

As indicated in Table 5, the High Anxious subjects devoted a smaller proportion of their time to inscribing in both situations than the proportion allocated by the Low Anxious subjects. A significant correlation of .84 ($p < .05 = .83$) suggests a relationship between these two measures, but a more plausible explanation might be their relative proficiency in English as indicated by their TOEFL scores. Greater proficiency may have enabled them to generate text at a faster rate, providing them with more time for other activities.

Pause Frequencies

Percentages calculated for frequencies of pauses of the three durations showed variation from Situation 1 to Situation 2. As reported in Table 6, the average number of pauses 10-29 seconds long decreased by seven per cent (from 9.33 to 8.67) while the mean numbers of mid-length pauses and pauses greater than 59 seconds long increased by 15 and 32 per cent respectively. Only for Liba, writing on a topic with which she was more at ease than with the one she chose in the non-test Situation 1, did the mid-length pauses and those greater than 60 seconds long decrease in frequency in the examination. With the exception, perhaps, of Liba, these increases in pauses of longer duration may indicate that these writers, a group generally accustomed to failure when writing an essay examination, were negatively affected by the test situation; that is, their ability to commit language which they had generated to paper may have been impeded, resulting in pauses of greater duration.

Table 6

Frequencies of Pauses

Subject	Situation 1			Situation 2		
	10-29*	30-59	60 +	10-29	30-59	60 +
Frank	5	2	1	9	3	2
Kei	8	4	1	6	0	5
Wang	9	2	1	7	6	1
Jolanta	13	3	7	7	7	11
Liba	10	5	6	13	4	2
Shiro	11	4	3	10	3	4
Means:	9.33	3.33	3.17	8.67	3.83	4.17

* Seconds

Two observations of interest are that for Kei, writing on a familiar topic in Situation 2, the sample revealed a greater frequency of long pauses, and for Liba, writing on a Situation 2 topic which she felt was easier, the greatest variation was in shorter pauses. This suggests these two writers displayed different ways of generating text when writing on relatively easy topics; perhaps Kei, writing on a topic of familiar content, deliberated at length over language concerns, while Liba, who knew from the outset what she would write, paused more often to deal with problems which were quickly solved. On the other hand, perhaps the increase in pauses of more than 60 seconds for Kei, a High Anxious writer, was a function of an increase in anxiety toward the examination. Moreover, Kei's lengthy pauses may have resulted from his attempting to recall language structures he had used when writing on the topic previously.

Pausing Durations and Inscribing

For individuals, variations in mean pause length, in the proportion of inscribing time spent in pauses, and in speed of inscribing were mixed (as reported in Table 7). For Frank and Liba, mean pause length for the inscribing sample decreased in the examination situation. For the others, mean pause length increased. For four writers, the proportion of the total time in the inscribing sample spent in pauses of greater than 10 seconds long increased, while for Liba, it decreased and for Jolanta remained the same. A significant correlation ($\rho = .89$ where the critical value for $p < .05$ is .83) was found between anxiety level increase and the variation in proportion of time pausing during the inscribing samples. All subjects but Jolanta inscribed at a considerably faster rate during the Situation 2 examination inscribing sample than they did in the non-test situation.

Table 7
Inscribing Variations Between Situations (Percentages)

Subject	Mean Pause Length Variation	Time Pausing Variation	Inscribing Rate Variation	S-1 Type 2 Pause Ratio	S-2 Type 2 Pause Ratio	Pause Ratio Variation
Frank	-7	+38	+63	.13	.43	+.30
Kei	+58	+38	+19	.62	.14	-.48
Wang	+31	+38	+37	.25	.14	-.11
Jolanta	+54	0	-35	.30	.32	+.02
Liba	-47	-12	+40	.33	.26	-.07
Shiro	+51	+23	+29	.28	.29	+.01

A comparison of anxiety increase and variations in both mean pause length and inscribing rate gave moderate correlations of $-.66$ and $.49$ respectively. While these are not statistically significant, an inverse relationship is suggested between increase in anxiety and variation in mean pause length. However, because of the extreme scores for Frank, for whom anxiety increased the most but whose pause length varied least, this apparent correlation must be considered cautiously. The moderate relationship suggested between anxiety increase and inscribing rate ($\rho = .49$) may be regarded with less caution; that is, because no extremes are apparent in the rankings, the suggestion that inscribing rate for these writers increased as anxiety increased may have been tenable had the number of subjects been larger.

Pause Locations

Data reported in Table 7 indicate that pause locations in relation to syntactic units varied between the two situations. For three writers, Frank, Jolanta, and Shiro, the ratio of Type 2 pauses (those within clauses or phrases) to Type 1 pauses (those between syntactic units) increased, while for the others, the proportion decreased.

A Spearman correlation of ranks on increase in anxiety and these variations in ratio suggests a fairly strong relationship ($\rho = .77$, where the critical value for $p < .05$ is $.83$).⁵ While this is not statistically significant, it must be noted that the subjects exhibiting the greatest increase in anxiety between the two situations also showed the greatest variation (30, 48, and 11 per cent respectively) in the locations of their pauses in the inscribing samples examined. Perhaps increases in anxiety regarding the examination resulted in hesitations in inscribing at different levels of text generation for these writers to a greater extent than for the Low Anxious group. For instance, the greater anxiety reported by Kei and Wang may have led them to ponder more at the beginnings of syntactic units during the examination than they had in the non-test situation, while increased anxiety may have had the reverse effect on Frank, causing him to rush from one syntactic unit into the next.

Alterations During Forward Drafting (Inscribing)

The occurrences of Lexical and Mechanical alterations performed during the inscribing samples, classified as Low Level alterations, and of Discourse and Conceptual changes, classified as High Level, are presented in Table 8. For the entire group, the total number of alterations (93 for Situation 1 and 92 for Situation 2 with means of 15.5 and 15.3 respectively) varied little from the non-test to the examination situation. Nor did the total numbers of Low Level and High Level alterations vary greatly.

The number of alterations performed by each writer was proportionate to the number performed by the other five writers in both situations. The High Anxious writers performed 68 per cent of the 93 alterations in the Situation 1 inscribing sample and 65 per cent of the alterations in the Situation 2 samples.

Table 8
Alterations During Inscribing

Subject	Situation 1					Situation 2				
	Alteration Types				% High	Alteration Types &				% High
	C	Low	High	Total		C	Low	High	Total	
Frank	7	17	9	26	35	4	13	12	25	48
Kei	4	11	7	18	39	5	11	2	13	15
Wang	7	13	6	19	32	16	11	11	22	50
Jolanta	3	4	1	5	20	6	4	3	7	43
Liba	0	5	4	9	44	0	8	4	12	33
Shiro	0	7	9	16	56	3	7	6	13	46
Totals:	21	57	36	93		34	54	38	92	
Means:		9.5	6	15.5			9	6.3	15.3	
S.D.		5.0	3.1	7.5			3.3	4.2	6.7	

C: Cosmetic Alterations

High: Discourse and Conceptual Alterations

Low: Lexical and Mechanical Alterations

In percentage terms, Jolanta, the least anxious writer, performed 23 per cent more high-level alterations in the examination situation than she did in Situation 1, but her alterations were so few in number (five and seven respectively) that this increase must be interpreted cautiously. If, for this reason, this ratio variation is removed for Jolanta, these data for High Anxious writers Frank and Wang represent the greatest increase in this variation, while the inscribing samples for the third High Anxious writer, Kei, reveal the greatest decrease (24 per cent). A relationship is suggested between anxiety and variation on this measure, albeit variation in different directions. Perhaps for Frank and Wang, examination pressure resulted in their attending more to high-level concerns than they had in the non-test situation. Perhaps the apparent decrease in this concern for Kei can be explained by his familiarity with the Situation 2 topic on which he had written before. In this case, Kei's grasp of the content and organization

may have enabled him to devote a greater amount of his attention to matters of a lexical and mechanical nature (also resulting in the great increase in syntactic complexity noted earlier).

As reported in Table 8, subjects with tendencies to perform cosmetic alterations (reformation of characters) tended to do more of this in the examination situation. Perhaps this behaviour was related to the pressure of the examination. Of particular interest in this regard is Wang, one of the High Anxious subjects, whose cosmetic alterations more than doubled in Situation 2 even though he was inscribing a rough draft.⁶ Noteworthy also is that, of the total 55 cosmetic alterations observed in the 12 inscribing samples, 43 were by writers in the High Anxious group. For the entire group, cosmetic alterations increased by 62 per cent, from 21 to 34, in the examination situation. These data strongly suggest that cosmetic alteration behaviours were related to anxiety.

Summary of Findings

According to assessment procedures used, quality of texts produced in the non-test and examination situations varied greatly (ranging from seven to 40 per cent). All of the subjects produced examination texts syntactically more complex than their non-test papers. In addition, the increase in complexity of their texts was roughly proportionate to increases by the other five writers.

The subjects allocated their time to pre-writing, inscribing, and post-drafting activities in similar ways in the two situations. However, when they were not engaged in pauses greater than 10 seconds long, five of the subjects wrote at a considerably faster rate in the examination than they did in the non test situation (even though the examination time was 20 minutes longer). For five subjects, longer pauses were more evident in the examination situation than in the non-test situation. For the entire group, the number of alterations to extant text and the ratio of Low to High Level alterations varied little between the situations.

The three High Anxious writers were also the most generally proficient in English (as measured by the TOEFL). These writers altered extant text frequently in the inscribing periods sampled from both the test and the non-test situations. Textual alterations indicated these writers attended to lexical and mechanical matters to a greater extent than did the Low Anxious writers. Two of these writers spent less time inscribing and more time in post-draft activity in both situations than did the other subjects in both situations.

According to assessment procedures used, two High Anxious subjects produced examination essays of poorer quality than their non-test papers.

While syntactic complexity increased for all of the writers in the examination situation, it increased to a lesser degree for those who reported increases in anxiety than for the others. Increases in syntactic complexity for two writers were accompanied by decreases in text quality.

Increase in anxiety level between the situations was accompanied by an increase in the proportion of time spent in pauses greater than 10 seconds long in the inscribing periods sampled. Ratios of pauses within syntactic units to those between syntactic units also varied more for the writers for whom anxiety increased. In addition, the ratio of High Level alterations of extent text to Low Level alterations varied most for these writers.

In the inscribing periods sampled, writers who tended to perform cosmetic alterations tended to do more of this in the examination situation. The writers with these tendencies were those in the High Anxious group.

Finally, the video records and post hoc interviews of this study revealed six writers who generated text of variable quality for what appeared to be very different reasons. Shiro, for instance, emerged as a confident, capable writer lacking the vocabulary and mastery of grammatical forms required to produce the five-paragraph English essay. Liba on the other hand, demonstrated severe doubts about her ability to convey her ideas in the written form of English.

Discussion and Implications⁷

Did anxiety play a role in the inability of the writers observed in this study to produce texts of consistent quality? All six of these writers, accustomed as they were to failing examinations of the type under study, exhibited certain behaviours differently in the two situations. To what extent the additional stress was the cause remains a question.

It appears that the examination situation prompted them to generate text of greater syntactic complexity than they did under less stressful conditions. Perhaps the knowledge that they were being tested prompted them to write longer, more complex sentences, an indication that they may have equated complexity of language with writing quality. On the other hand, because all six writers found the examination topic (by intention) easier, perhaps the relative ease of topic permitted them to develop more complex sentences.

That pause lengths and inscribing rates generally increased for all of them in the examination situation suggests that these six writers were prompted both to ponder more and also to race with greater speed against the clock when they were not engaged in pausing activities (despite the longer period for the examination.)

Regardless of the discrepancies among text quality assessments, two of

the more proficient subjects spent much less of their time inscribing and more of their time engaged in post-drafting activity in both situations. This suggests that greater general proficiency enabled them to generate text at a faster rate than that of the less proficient writers. The same two writers also made many more alterations while inscribing than did the others. General proficiency in English may have enabled these writers to make decisions more quickly than the less proficient writers.

Because the subjects who reported to be generally anxious (AAT score, Table 1) and who reported the greatest increases in state anxiety between the two situations were also those who had the highest TOEFL scores for English proficiency, relations between this proficiency measure and other measures are tenuous. However, the possibility that the more proficient subjects were more anxious because their expectations of passing the examination were especially high and that they perceived themselves to be at greater risk must be considered.

Implications for Assessing Composing Competence

The variations in quality of the texts generated by the writers in this study support the long-standing conclusions regarding the questionable validity of basing assessment of composing ability on the quality, assessed by any measures, of only one text. That recognized tests (such as the TOEFL, with its component Test of Written English), and educational institutions (such as the university attended by the subjects of this study) continue to base assessment of writing competence on a single sample of a student's writing is strongly called into question.

Likewise, that text quality is generally held to be the prime measure of a writer's composing ability is called into question. Surely the processes these writers employed to generate text need to be considered as valid measures of their composing skill; the texts which resulted stand merely as artifacts of those processes in the two situations observed. Development of assessment procedures which would facilitate evaluation of a student writer's composing behaviours is needed.

In ESL composing, assessment procedures need to address the distinction between writing expertise and English proficiency. The competent writer whose text quality is affected by low proficiency in the second language needs to be identified so that pedagogy can address the writer's real needs.

Finally, writing process assessment procedures need to identify the idiosyncratic characteristics of certain writers who may be apprehensive about writing or anxious in certain situations so that pedagogy can address the problems of these individuals as behaviours which can be altered with instruction rather than merely deficiencies in the ability to write.

Implications for Teaching

The findings of this study seriously call into question the practice of focussing instruction on the English essay genre rather than on writing skill. In the interviews conducted in this study, these writers, working to produce the five-paragraph essay, complete with introduction, three-paragraph body, and conclusion, reported high concern for the essay form and for accuracy of language. Little did they reflect on the processes by which they generated, selected, classified, and organized their ideas. Such student writers need to become cognizant of their composing processes and apply them efficiently according to the demands of the particular writing situation. Concerns about textual content and form as well as what is expected need to be reduced. Until such student writers learn to focus and reflect more on *how* they write rather than on *what* they write or what they *should* write, the efforts of writing teachers to affect the composing ability of their students may result in little more than frustration for both students and teachers.

Writing teachers need to adopt means to reduce the effects of anxiety on the ability of some student writers to perform well in stressful writing situations. By enabling student writers to gain insight into their own writing behaviours, perhaps teachers can help them develop strategies for overcoming the effects of stressful situations and their apprehension about writing as they get on with the serious business of learning productively.

In the teaching of ESL writing, students such as Shiro, who demonstrate a high level of composing expertise but low second-language proficiency, need to be identified and treated differently from those such as Liba, for whom the craft of writing has yet to be developed.

Implications for Research Methods

The six writers in this study, accustomed as they were to failure, had little to lose by participating in the study. An attempt to examine the composing behaviours of a more expert writer, using the techniques employed in this study, would likely be frustrated by the writer's refusal to participate in an examination situation. Process-tracing techniques more sophisticated than the video observation procedures employed here may eliminate the threat of intrusion by the researcher, and thereby enable the investigation of the processes of anyone writing under high-stress test conditions.

Final Notes

A number of variables not controlled in this study could inform future studies in this area. Although considerable care was taken to ensure that

the test topics were easier than the non-test topics, the test topic choices included one on which one writer (Kei) had written several times before. Nor did the study ensure uniformity of general English proficiency among the subjects. Nor did the study explore the writing experience among the subjects or their performance and the writing in concurrent academic course work. That the subjects regarded as High Anxious were also those most proficient (as measured by the TOEFL) posed a problem.

Whatever variables were at work in the processes examined in this study, and whatever the degree of caution one must adopt in drawing inferences from this observation of such a small number of subjects, that these research subjects were writing in a situation sponsored neither by school nor by research leaves no question that they were demonstrating, in at least the examination situation, their *real* writing processes; the academic futures of these students were at stake in the test situation in which they were expected to demonstrate their highest quality English writing.

Braddock, Lloyd-Jones, and Schoer, in 1963, called for composition assessment methods which stimulate writers to perform as best they can. "Surely," they wrote, "there must be some stimulating factor in a topic and, if possible, in the writing situation, too, if the writing they trigger is to have any significance for research" (Page 6).

Whether or not the topic choices available to the six writers in this study were stimulating, the written English proficiency examination observed in Situation 2, in which so much was at stake, provided a motivation to perform which cannot be denied.

Epilogue

Following this study, all of the subjects were granted an appeal examination. Two, Kei and Frank, declined the opportunity to write the examination yet again and left the university. The other four wrote the appeal examination. Wang passed, and pursued his studies with full status, unimpeded by the English proficiency requirement. The other three failed.

Liba's appeal examination score was 52. Her scores on the two papers produced in this study were 53 and 41. Shiro's appeal examination text received a score of 35 compared with scores of 48 and 67 on the papers he produced in the course of this study. Jolanta produced an appeal examination which scored 34 compared with scores in this study of 55 and 51.

The findings of this study strongly suggest that the application of procedures which assess the writing skills of such student writers, rather than the quality of the texts they produce, would enable instruction to address deficiencies in writing expertise which otherwise may lead to continued failure.

APPENDIX 1

Non-Test Situation 1 Topics:

1. The censorship of books and films is necessary to protect society. Give reasons why you agree or disagree.
2. Discuss the psychological and economic effects of the liberation of women on family life.
3. The lives of your parents were easier than life is for people in your generation. Give reasons why you agree or disagree.
4. Discuss the causes and effects of a serious social problem in your native country.

Examination Situation 2 Topics:

1. Discuss the effects of a significant technological change.
2. Compare the way you used to spend your leisure time in the past with the way you spend your leisure time now.
3. Compare the ideas you had about Canadians before you came to Canada with your present impressions.

APPENDIX 2

ESL Course Examination Evaluation Criteria
 A WRITING ASSESSMENT—FOR MARKERS ONLY
 March, 1988

STUDENT'S NAME _____

In evaluating your paper, markers noted a numbers of weaknesses in your work. [Check marks below indicate the types of errors you have made.]

CONTENT	ORGANIZATION	SENTENCE STRUCTURE
___ no clear central idea -30	___ faulty development (in essay as a whole) ___ one paragraph (no indentations) -30	___ lacks sentence variety (over-reliance on simple sentences) -30
___ logic is faulty ___ generalizations are not supported with specific details ___ repetitiousness ___ irrelevant material -15	FAULTY PARAGRAPHS Lack of: ___ unity ___ development ___ coherence (i.e., transitions missing or transi- tions used illogically) ___ internal logic ___ excessive use of short paragraphs	FAULTY SENTENCE STRUCTURE ___ fragment ___ faulty predication ___ mixed construction ___ run-on sentence ___ illogical comparison ___ faulty subordination ___ faulty coordination ___ comma splice -4
___ weak support for generalizations ___ weak introduction ___ weak conclusion -4		___ faulty parallelism ___ dangling modifier ___ misplaced modifier ___ incomplete comparison ___ wrong word order -2

MANDATORY FAILURE:

- ___ Essay is off topic
 ___ Essay is too short
 (i.e., does not meet
 required word limit)

COMMENTS:

GRAMMAR	DICTION	MECHANICS
___ agreement faulty: subject and verb ___ pronoun use faulty: gender/agreement ___ verbs faulty: ___ form ___ tense ___ tense sequence ___ passives (for intransitive verbs) -4	___ wrong part of speech ___ wrong word I: (major - obscuring meaning) ___ countable/uncountable nouns misused ___ faulty agreement of parts of speech ___ illogical transitional word -4	
___ pronoun use faulty case or shift ___ verbal use faulty ___ gerund ___ infinitive -2	___ articles: misused or missing ___ preposition incorrect ___ singular/plural nouns misused or confused ___ verb idiom faulty ___ wrong word II: (minor) ___ word missing -2	
___ pronouns vague e.g. "it" "this" -1	___ too many one-syllable/ two syllable words ___ redundancy -1	___ misspelling ___ punctuation

EXAM MARKING SHEET

1. Tally points off on the "Writing Assessment" form. Total these and write the total and your initials in the appropriate spaces below.
2. Convert as follows:

Multiply points off by 300

Divide this by the word count

Subtract the results from 100 for final score

Student Name: _____
Family Name First

Word Count: _____

	Initial	Points Off	Converted	Final
Marker #1 ()	_____	_____	_____	_____
Marker #2 (English Dept)	_____	_____	_____	_____
Marker #3* (English Dept)	_____	_____	_____	_____

(*Only in the event of pass/fail disagreement between Marker #1 and Marker #2)

MARKER 2/3:
Final scores of less than 65 are failing scores.

FINAL ASSESSMENT: Pass _____ Fail _____

If final assessment is "Fail", would you recommend/support an appeal?
Yes _____ No _____

* * * * *

FOR OFFICE USE ONLY

Student Name: _____

 Family Name First

Pass _____ Fail _____ Appeal _____

NOTES

1. The use of think-aloud protocols was rejected because this might have negatively affected the subjects performing on the examination. For the same reason, a second camera was not focussed on the writers during the tasks.
2. Subjects adopted pseudonyms.
3. For $n = 6$ at $p < .05$, a Spearman rank correlation of .829 is required for statistical significance. A Spearman rank correlation of .943 is required at $p < .01$. Had the number of subjects been nine, significant coefficients would have been .600 and .783 at $p < .05$ and $p < .01$ respectively. At $n = 12$, these would have been .497 and .591 respectively.
4. All of these six writers may have suffered from test anxiety, describing them as either High Anxious or Low Anxious was purely for comparisons within this specially selected group.
5. Removing data for Frank, whose variation in Type 2 pause ratio was in an opposite direction from the ratios of the other two High Anxious subjects, resulted in a Spearman correlation coefficient of .80 which approaches statistical significance (where the critical value for $p < .05$ is .829).
6. In both situations, Wang wrote a rough draft which he labeled as such and wrote a final copy during his post-inscribing activities.
7. A detailed report on the profiles of these six writers which emerged from the video records and the post-hoc interviews is beyond the scope of this report. Some of the following discussion is based on these observations not reported in depth here.

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