

FIGURE 6: Assessment Results for the Spelling Section

SPELLING AND LANGUAGE			
% State	Q No		Item Description
16	17	<input type="radio"/>	Punctuation: Use a question mark to indicate a question
16	3	<input type="radio"/>	Spelling: litre (NOT leeta)
30	10	<input type="radio"/>	Spelling: kept (NOT cep)
33	19	<input checked="" type="radio"/>	Punctuation: Use speech marks at the beginning of speech
35	21	<input checked="" type="radio"/>	Grammar: Identify missing capital letter for proper noun
35	22	<input checked="" type="radio"/>	Grammar: whole (NOT hole)
35	8	<input type="radio"/>	Spelling: ecary (NOT skaree)
36	23	<input type="radio"/>	Spelling: of (NOT off)
40	11	<input type="radio"/>	Spelling: really (NOT reallie)
52	9	<input type="radio"/>	Spelling: running (NOT runninn)
62	20	<input type="radio"/>	Grammar: biggest (NOT bigger)
63	5	<input checked="" type="radio"/>	Spelling: look (NOT luk)
66	24	<input checked="" type="radio"/>	Punctuation: Identify a missing apostrophe in a contraction
68	16	<input checked="" type="radio"/>	Punctuation: Use a full stop to complete a sentence
70	14	<input checked="" type="radio"/>	Punctuation: Use a capital for a proper noun
74	25	<input checked="" type="radio"/>	Spelling: with (NOT wih)
74	4	<input type="radio"/>	Spelling: cold (NOT cowled)
79	6	<input checked="" type="radio"/>	Spelling: rush (NOT rarsh)
80	12	<input type="radio"/>	Spelling: spin (NOT spen)
81	7	<input type="radio"/>	Spelling: about (NOT about)
82	15	<input checked="" type="radio"/>	Punctuation: Use a capital letter to start a sentence
85	13	<input checked="" type="radio"/>	Spelling: free (NOT frea)
85	18	<input checked="" type="radio"/>	Punctuation: Use a capital letter to start a sentence
90	1	<input checked="" type="radio"/>	Spelling: like (NOT lyek)
91	2	<input checked="" type="radio"/>	Spelling: play (NOT plaē)

(Source: Department of Education and Children's Services, South Australia, 2003)

Ellie correctly answered 14 questions and incorrectly answered 11 questions on this section. She provided correct responses to six of the seven punctuation questions, but missed the most difficult question (Question #17). She also performed well on the grammar questions, correctly answering the two difficult questions (#21, #22), but missing the easier question (#20). By contrast, her performance on the spelling questions was relatively weak. She correctly answered six questions and incorrectly answered nine questions. She was only able to answer questions in the lower ranges of difficulty, which were correctly answered by at least 63% of students, and also missed three relatively easy questions (#4, #12, #7). Ellie's spelling knowledge consequently appears to be quite limited in terms of the difficulty level of the items that she has learned, and there are gaps in her vocabulary knowledge of many easier words. Ellie's results on the spelling questions are clearly also her weakest performance area on the BST.

Comparative Study of Sample Texts

English Composition

The sample English text chosen for analysis is the beginning of a composition Ellie was writing about the same time she took the BST. The students in her class were producing an original story for a school writing competition, with the first stage being to write a narrative text about three pages in length and submit it to the teacher. The teacher checked the text for errors and wrote corrections directly on the first draft. Ellie then revised the composition and typed it up on a word processor. She printed out the full text and added many illustrations to produce a story booklet, which was submitted to the writing competition. The stories were later returned to the school and displayed at the next Open Day as an example of the literacy work produced by Ellie's class.

The first page of Ellie's composition ("Ashley and the Sea Adventure"), reproduced in Figure 7, reveals an abundance of errors and the numerous corrections made by the teacher. The text sample (as shown) contains only 220 words, yet the teacher has made 99 corrections. In order to compare these results to the assessment measures used on the Spelling and Language Section of the BST, we counted error frequencies in the sample text according to the same aspects of language assessed on the test (punctuation, spelling, and grammar). Our error counts are based on the teacher's corrections of words and sentence structure, with misspelled words containing more than one incorrect letter counted as single errors.

In summary, the sample text contains 65 spelling errors, 21 punctuation errors, and 13 grammatical errors. The abundance of spelling errors (66% of the corrections) seriously impacts the readability of the story, since words frequently need to be reconstructed from phonetic spellings (e.g., "Ones" / Once; "gel" / girl; "noml" / normal; "pepl" / people). The punctuation errors (21%) also affect the readability, and include missed capital letters and commas, sentences run together into a continuous stream, and omitted full stops. The grammatical errors (13%) are relatively infrequent and tend to be "other" types of language errors rather than grammatical problems; they include incorrect expressions and word choices (from ... "the bottom to" / her toes to; a fish tail ... "was on her" / appeared; "that" / who; "had" / did).

Our error counts on the sample text can only be compared to the BST results to a limited extent, since the two sources are different in nature. The BST contains graded language excerpts and aims to test a range of literacy errors which occur with high frequency at the Year 3 primary level, whereas the sample text comprises an extended piece of original writing. The different purposes are also relevant; while the BST seeks to identify Ellie's progress along a developmental continuum according to long-term literacy goals (Education Department of Western Australia, 1997), the English composition is part of a process of creative writing, editing and revision.

The comparison of the different sources is, however, effective at a general level. The high frequency of spelling errors in the composition is consistent with Ellie's results on the Spelling and Language Section of the BST. Spelling is also identified (in both sources) as being weak in terms of Ellie's extensive knowledge as well as her knowledge of many common words in English.

FIGURE 7: First Draft of English Composition

Adventure

Ashley and the Sea invender
~~One~~ ^{Once upon a time} there was a little girl ~~the~~
 was eight years old and her name
 was Ashley. She was a ~~middle~~ ^{middle} girl
 that went to school and did all
 the stuff that other ~~people~~ ^{people} do.
 One day she woke up and got
 dressed and ~~ate~~ ^{ate} her breakfast. ~~and~~
 brushed her teeth and her
 mum took her to school, but
~~new~~ ^{new} was there. On her table
 there was a ~~fish~~ ^{fish} bottle that had
 some pink stuff in it. She had
 a sip and ~~sudden~~ ^{suddenly} ~~she~~ ^{she} pink
~~claw~~ ^{claw} took her to the sea.
 and from the ~~bottom~~ ^{bottom} to almost
 to her tummy a fish tail ~~appeared~~.
~~was~~ ^{was} on her top. ~~he~~ ^{he} came
 in to ~~too~~ ^{too} her shell (on where
 no one ~~except~~ ^{except} your family can
 look). She felt that she was
 a ~~monster~~ ^{monster} and she was Ashley
 felt ~~shy~~ ^{shy} but she had no time
 there was a ~~hand~~ ^{hand} ~~shark~~ ^{shark} coming
 to eat her. "No time" she said.
 She swam fast. "I ~~had~~ ^{had} to get
 away" she said. The ~~shark~~ ^{shark} ~~was~~ ^{was}
 away. She ~~had~~ ^{had} ~~some~~ ^{some} ~~time~~ ^{time} ~~to~~ ^{to} ~~practise~~ ^{practise}
 "I think I'm getting ~~close~~ ^{close} to it now"
 she said, and she ~~look~~ ^{look} up. ~~then~~ ^{suddenly}
 a ~~other~~ ^{other} shark came up, so I
 she swam very ~~quickly~~ ^{quickly} and
 said, "Haha can't catch me". The shark
 got ~~cross~~ ^{cross}, so he swam away.

Teacher's Comments: Fantastic story Ellie. Olivia and Ashley's friendship is beautiful. Good use of speech marks.

We wish to comment on two further aspects of the initial composition. First, Ellie routinely made simple punctuation errors in the sample text, even though she scored well on the punctuation questions of the BST. We are unable to explain this large difference, although it is possible that Ellie had acquired passive knowledge which enabled her to recognize errors in test questions, but did not yet have the active knowledge which would enable her to produce the correct forms.

Second, the teacher's comments at the end of the composition (shown as the caption for Figure 7) are interesting. She has not referred to the large number of spelling errors and seems to accept this as a normal part of the process of learning to write. The importance of spelling competence is apparent in the many corrections she has provided, but there also appears to be an understanding that accurate spelling

is a long-term objective based on stages of gradual development along the writing continuum (see Education Department of Western Australia, 1997). In a previous study (Stephens & Blight, 2002), we observed similar evidence of the pedagogic acceptance of the inevitability of spelling errors at the early primary level in Australia, which we believe can be associated with expectations that the mapping of meaning to form in English writing occurs gradually over several years of literacy education.

By contrast to the first draft, the revised version of the composition is highly readable (see Figure 8). Beneath the mass of spelling and punctuation errors, we can now observe that Ellie has produced a coherent and well-structured piece of creative writing. There are no problems evident in areas of discourse structure, sequencing, or content; as a result, the revised story is fluent, imaginative, and coherent. We can study the composition at the level of discourse structure (as compared to linguistic form) by considering the revised version in terms of the discourse competencies featured in the Writing Section of the BST (detailed in Figure 5). While BST Competency #01 (C01) refers to a specific text genre ("persuasive letter"), this competency can be applied to the sample text by modifying it to refer to the relevant genre (e.g., C01: "Understands structure of a *narrative text*"). The other ten writing competencies (C02 – C11) in the BST Writing Section can be applied directly to the sample text analysis without modification.

The revised composition employs the structure and common features of a narrative (e.g., "Once upon a time ..." and "One day ...") and is also well-structured (C01-1, C01-2, C01-3). The story develops relevant to the theme of "Ashley and the Sea Adventure" (C02-1, C02-2). There is an elaborate introduction which provides background information and a detailed account of Ashley's activities prior to the adventure (C03-1, C03-2, C03-3). The story is sequenced in a clear and organized way to directly relate Ashley's experiences (C04-1, C04-2, C04-3). The text sample does not include the ending, so we cannot comment on whether Ellie has achieved Competency #05.

On the sentence level, there is good usage of descriptive words (e.g., "a normal girl", "a funny bottle", and "some pink clouds"), although this could not be considered detailed or elaborate (C06-01, C06-02). There is frequent usage of simple and compound sentences, and some complex structures are employed (e.g., "a little girl *who* was ...", "a normal girl *who* went ...", and "a funny bottle *that* had ..."), although not at a level of grammatical complexity (C07-1, C07-2, C07-3: partially achieved). Tenses and verb forms are used correctly ("she woke up and got dressed"; C08-1). Pronoun references and conjunctions are also evident ("she", "I", and "but"), although not at a level of grammatical complexity (C09-1, C09-2, C09-3: partial). The simple punctuation is mostly correct and complex punctuation, including commas, speech marks, and parentheses, is attempted, although these are often corrected by the teacher (C10-1, C10-2). There are many spelling errors, including both common words and less common words (C11-1: partial).

FIGURE 8: Revised English Composition

Once upon a time there was a little girl who was eight years old and her name was Ashley. She was a normal girl who went to school and did all the stuff that other people do. One day she woke up and got dressed and ate her breakfast . She brushed her teeth and her Mum took her to school, but no-one was there. On her table there was a funny bottle that had some pink stuff in it. She had a sip and suddenly some pink clouds took her to the sea. From her toes to almost her tummy a fish tail appeared. Her top half became two shells {on where no-one except your family can look}. She felt that she was a mermaid and she was. Ashley felt shy but she had no time to worry about that because there was a hungry shark coming to eat her. "No time ," she said. She swam fast. "I have to get used to this", she said. The shark went away. She had some time to practice mermaid skills. "I think I'm getting used to it now", she said and she looked up.

We can conclude that Ellie's sample composition demonstrates effective usage of discourse structure on most competencies at several levels of difficulty, with the exception of the comparatively weak result in spelling. Her writing performance on the English composition is also clearly superior to her results on the BST, where she achieved only level 1 competencies.

Her revised composition provides documentary evidence of a successful piece of writing at the Year 3 primary level, which appears to be consistent with an overall literacy rating at the lower end of Band 4 on the Basic Skills Test. The initial version also demonstrates Ellie's general weakness in the area of spelling competence, which contrasts with her high level skills in areas of discourse structure.

Japanese Report

A Science Record Card written by Ellie as a Year 3 assignment in Japan is reproduced in Figure 9. The assignment was a report about the flowers and plants Ellie observed in the school garden. There are no corrections apparent from the teacher, although Ellie has erased and rewritten several sections. The teacher has marked a *hanamaru* symbol (meaning “very good”) and added some comments expressing her interest in the composition. She has also circled two parts and underlined three sentences to indicate good sections of writing. A transliteration of the text of the report into the Western alphabet (*romaji*) and an English translation are provided directly below it, as well as a transliteration and translation of the teacher’s comments on this work.

We can apply the same type of discourse analysis to the Science Report as we did to the English composition, since the writing competencies in the BST relate to general discourse features rather than language-specific or genre-related features. This type of analysis based on a common discourse framework consequently enables us to make fundamental comparisons between the Science report and the English composition. In the following analysis, the writing competencies (C01 – C11) and three levels of difficulty are again taken from the BST evaluation (details in Figure 5). Minor modifications have been made to two competencies to apply them to the Japanese report (i.e., C01-1: “Understands structure of a *persuasive letter*” → Understands structure of a *science report*; C11-1: “*Spells common words correctly*” → Common words are correctly *formed*).

The Japanese text sample contains the basic features and structure of a science report by providing a series of descriptive observations of nature, but also includes a personal reflection and an irrelevant ending (C01-1, C01-2, C01-3: partially achieved). The second competency is achieved since *most* of the text is relevant to the theme, but not quite *all* of the text (C02-1, C02-2: partial). There is no introduction provided, so Competency #03 can not be rated. The sequencing in the text is clear and organized, starting with a description of the pansy, then continuing to describe the ground, the stones, and the plants nearby, although it might be better if one sentence (“The branch had been chopped off ...”) appeared earlier (C04-1, C04-2, C04-3: partial). A clear and simple ending is provided (“On the way back ...”), but there is no conclusion (C05-1).

The science report contains many descriptions (e.g., “a big beautiful pansy”, “torn leaves”, “the folds and lines on the leaves”, and “the flower that looks like a tulip”) that function effectively at different levels of grammatical complexity (C06-01, C06-02, C06-3). Correct usage of simple and compound sentences is combined with effective usage of embedded and complex sentences (e.g., “The center of the flower *that looks like a tulip* is amazing”; “The leaf burned *when Saori ...*”; and “*When we did this to an old leaf*, smoke appeared ...”; C07-1, C07-2, C07-3). Verb forms and tenses are used correctly (e.g., “The branch had been chopped off”; and “The leaf burned when Saori turned ...”; C08-1). Pronoun references (“*sonna*” [such a]) and conjunctions (“*atte*”, “*kiretete*”, “*atetara*”, “*yattemitara*”, and “*dete*”) are used effectively throughout the text (C09-1, C09-2, C09-3). Most of the punctuation is simple but correct (*maru* / period; C10-1). Finally, all the words are accurately formed throughout the report, with the exception of the error (“*toshiori*” / *toshiyori*), which is uncorrected (C11-1, C11-2, C11-3: partial).

In summary, Ellie’s Japanese report effectively attends to all the discourse features used as writing competencies in the Year 3 Australian Basic Skills Test. Furthermore, the text sample provides evidence of high level discourse skills, with all three levels of difficulty achieved in three writing competencies (C06, C07, C09), and another three competencies almost achieved at all levels (C01, C04, C11).

Summary of Findings

This study has produced a number of interesting findings relating to Ellie’s English literacy development which are summarized in Table 3.

TABLE 3: Findings Concerning English Literacy

1	Very high score achieved on the Reading Section of the BST.
2	Mixed results in the area of writing skills; average score achieved on the BST Writing Section, but higher level skills apparent in the text analysis.
3	Mixed results in punctuation; good results on the BST, but average performance apparent in the English composition.
4	Consistently weak results in spelling on both the BST and in the English text; evidence of lack of extended vocabulary as well as gaps in knowledge of more common words at the Year 3 level. Poor English spelling results stand in marked contrast to the high standard of well-formed words in the Japanese text.
5	Pronounced differences between literacy skills evident, with a clearly defined order of abilities (reading, writing, then spelling). Ellie’s skills profile also occurs in the opposite order to the Year 3 state averages (spelling, writing, then reading).

First, Ellie's high overall score on the BST was relatively positive, although this can be regarded as the combination of a very high result on the Reading Section and an above average result on the Writing Section. Our discourse analysis of her English composition, however, suggests higher level writing skills than indicated by the BST results. Evaluations of Ellie's punctuation were also mixed, with very good results on the BST compared to average performance in the English composition. In contrast, her results on the Spelling Section of the BST are relatively poor, but match her education profile, and a similar standard is verified in the English composition.

Thus, pronounced disparities in Ellie's abilities are apparent in the different aspects of literacy, which is surprising when considered in comparison to the minor differences in the state averages for these skills. This is also surprising because of her relative lack of practice in all of these areas. Finally, her skills profile (with her strongest showing in reading, a lower one in writing, and the lowest in spelling) occurs in the opposite order to the state averages on the BST (where spelling is highest, writing next, and reading last).

Our analysis of the two text samples at the discourse level has also provided some interesting findings, which are now combined with the BST results and summarized in table format, with the writing competencies (C01 – C11) appearing as rows, and the three text sources as columns in Table 4. The competencies *achieved* are shown as filled cells, *partially achieved* as patterned cells, and *unachieved* as blank cells.

In summary, of the 30 writing competency evaluations made in this study, Ellie was seen to have achieved 11 competencies on the BST Writing Section (with none partially achieved), to have achieved 20 and partially achieved 4 competencies in the English composition, and to have achieved 19 and partially achieved 4 competencies in her Japanese report. Her overall record is full or partial achievement of 37% of the writing competencies on the BST, compared to 80% on the English composition and 76% on the Japanese report.

Two key points are evident in the discourse analysis. First, there is a major discrepancy between the BST results and the results on the English composition. We believe that the lower performance rating on the BST was due to the combined effect of a disadvantageous test task and a flawed test design, as argued above, and that our analysis of the English composition more accurately portrays Ellie's writing ability. Second, while there are not exact correspondences between the writing competencies achieved on the Japanese and English texts, as seen in Table 4, the discourse analysis clearly demonstrates that Ellie is producing a consistent level of discourse features in both languages despite the unequal amounts of time spent learning the two languages.

TABLE 4: Evaluations of Discourse Features in Three Written Texts

		Description of Writing Competency	BST Text	English Text	Japanese Text
C01	1	Understands structure of text genre	████████	████████	████████
	2	Contains some features of text genre	████████	████████	████████
	3	Well structured example of text genre	████████	████████	▬▬▬▬
C02	1	Most writing is relevant to the theme	████████	████████	████████
	2	All writing is relevant to the theme	████████	████████	▬▬▬▬
C03	1	Clear and simple introduction provided	████████	████████	████████
	2	Detailed introduction provided	████████	████████	████████
	3	Elaborate introduction provided	████████	████████	████████
C04	1	Uses simple sequencing of information	████████	████████	████████
	2	Uses clear and organised sequencing	████████	████████	████████
	3	Uses sequencing in the best way possible	████████	████████	▬▬▬▬
C05	1	Provides a clear but simple ending	████████	████████	████████
	2	Provides a clear conclusion	████████	████████	████████
	3	Provides an effective conclusion	████████	████████	████████
C06	1	Attempts some descriptive words	████████	████████	████████
	2	Good use of descriptive words	████████	████████	████████
	3	Effectively uses descriptive words	████████	████████	████████
C07	1	Uses simple and compound sentences	████████	████████	████████
	2	Attempts complex sentences	████████	████████	████████
	3	Uses simple, compound and complex sentences	████████	▬▬▬▬	████████
C08	1	Uses tense and verb form correctly	████████	████████	████████
C09	1	Uses simple pronoun references & conjunctions	████████	████████	████████
	2	Uses appropriate pronoun refs & conjunctions	████████	████████	████████
	3	Effectively uses pronoun refs & conjunctions	████████	▬▬▬▬	████████
C10	1	Simple sentence punctuation is mostly correct	████████	████████	████████
	2	Attempts complex punctuation	████████	████████	████████
	3	Correctly uses most simple & complex punct.	████████	████████	████████
C11	1	Common words are correctly formed	████████	▬▬▬▬	████████
	2	Less common words are correctly formed	████████	████████	████████
	3	Difficult words are correctly formed	████████	████████	▬▬▬▬

FURTHER DISCUSSION

Our findings concerning Ellie's development of English literacy skills are open to various interpretations. It is possible that the results are simply a reflection of Ellie's ability profile, and that her English literacy is developing *independently* of her Japanese literacy. However, we find it difficult to interpret the results in this way because we do not think that Ellie could have achieved such good literacy results based on her school attendance in Australia and her limited English literacy support at home. Rather, we believe that her English literacy has been directly enhanced by the transfer of specific aspects of Japanese literacy, and our reasons for reaching this conclusion shall now be discussed in relation to our research findings and personal observations made as parents of a child attending primary schools in the two countries.

Ellie's very high score on the Reading Section of the BST (finding 1 in Table 3) can be directly explained in terms of the transferability of literacy skills across languages. Both the text types and the specific competencies featured in the BST reading assessment (detailed in Figure 4) pertain to discourse features that occur commonly in both languages. Although the limited amount of time Ellie has spent in the Australian education system has meant reduced exposure to many types of English texts, Ellie has previously encountered the same genres in Japanese. Fables, informative texts, and narrating texts are found in Japanese language (*kokugo*) textbooks; poems (especially haiku) are used in Japanese reading and writing activities; cartoons (*manga*) are popular and widely available in Japan; and instructing texts, promotional texts, and web pages are also sometimes encountered by children in Japan. Ellie's exposure to a range of text genres in Japanese appears to have facilitated her understanding of the equivalent genres in English. Her reading skills in Japanese can be similarly related to the reading competencies being evaluated on the BST. Ellie has learned to identify authors, locate specific information, draw conclusions, recognize descriptive words, and understand main ideas through her reading tasks in Japanese, and appears to have been able to transfer these skills to reading in English. We consequently maintain that Ellie's reading performance in English is strongly indicative of the positive transfer of reading skills from Japanese.

Ellie's English literacy also seems to have benefited from positive transfer in a number of other important areas. We believe her results on the Writing Section of the BST do not reflect her true writing ability, since our discourse analysis (Table 4) provides clear evidence that Ellie can achieve the majority of writing competencies in English as well as Japanese (finding 2 in Table 3). Her English writing ability can again be interpreted in terms of the underlying writing competencies being transferable from Japanese. Ellie learned different types of writing first in Japanese assignments, which featured introductions and endings. She practiced the use of sequencing words, pronoun references, and conjunctions in her Japanese compositions. She also learned to be relevant to a theme and to use tense and verb forms correctly in Japanese. Simple punctuation, sentence structures, and the use of descriptive language were incorporated in her Japanese literacy work and are also demonstrated in the Japanese sample text.

Just two writing competencies cannot be directly related at the discourse level across languages. First, Competency #01 relates to specific text genres, but since Ellie had been previously exposed to narratives in Japanese there was no problem with this competency. Second, Competency #11 is language-

specific and relates to spelling (English) or forming words correctly (Japanese), an area where a major difference in performance levels is indicated in the analysis of the results.

Ellie's knowledge of punctuation also appears to have been transferable, although to a more limited degree (finding 3 in Table 3). Although her score on the BST was good, punctuation errors comprised 21% of the reported errors on the English text. This suggests that Ellie may have developed passive knowledge of punctuation which enabled her to score well on the BST but which she was not able to put into active use when composing an English text. It is difficult to reach a firm conclusion in this area; we can interpret the frequently missed capital letters in terms of non-transferability from Japanese, but not her mistakes in the determination of sentence boundaries or the use of commas or full stops, which follow similar grammatical rules in the two languages.

The single major difference between Ellie's literacy skills in the two languages, however, occurs in the distinction between her well-formed Japanese words (evident in the Science report) and her relatively poor spelling, as determined in both the BST results and the error report on the first draft of the English composition. We consequently believe that this is one area where Ellie's limited attendance at school in Australia appears to have seriously impeded her literacy achievement, with no benefits of positive transfer from Japanese writing apparent at any level (finding 4 in Table 3). This finding can also be explained in terms of spelling being a type of language-specific knowledge which may be transferable between languages with similar orthographies but is non-transferable between Japanese and English because of the different scripts (Cowan & Sarned, 1976; Genesee, 1976, 1979).

The weakness in Ellie's spelling can be further explained in terms of children frequently being required to write English words which they have not previously encountered in written form. Spelling in Australia is typically rote-learned through repeated practice and testing, and since Ellie has not spent sufficient time developing her spelling knowledge, this area of her literacy has seriously lagged behind other students at the Australian primary school. Teachers in junior primary years accept the frequent production of invented spellings (e.g., "invencher" for "adventure") as a learning stage because oral exposure occurs prior to literacy development in first language acquisition and there is also a lack of correspondence between oral and written forms in the English language. Similar errors of form do not occur in Japanese because children do not attempt to write kanji which they have not previously been taught in the classroom. Unfamiliar words are instead written in hiragana according to a phonetic system featuring a regular correspondence between sound and form. This intrinsic difference between the written forms of the two languages means that children learning to write English can be expected to make more frequent errors of form than children learning to write Japanese (see Stephens & Blight, 2002).

Finally, we believe that the pronounced differences between Ellie's English literacy skills and her specific skills profile (finding 5 in Table 3) have been to a large extent determined by the degree of transfer of underlying discourse competencies from her knowledge of Japanese literacy. Positive transfer appears to have been greatest in the area of reading skills, which feature many underlying competencies that seem to have been transferred directly from Japanese. Discourse skills also feature prominently in writing development, although there appears to have been less effective transfer in this area, since Ellie's

English writing ability is not at the same level as her reading ability. Lastly, it was not possible to transfer her knowledge of correct Japanese word form, and as a result, Ellie's limited attendance at Australian schools led to low achievement in English spelling.

As a consequence of these factors, Ellie's skills profile has emerged in a specific ranking order on the BST (reading, writing, then spelling) based on the degree of transferability of the competencies involved in each skill. Interestingly, this "order of transferability" of literacy skills is the opposite of the order seen in the typical development of literacy skills in South Australian schools.

CONCLUSIONS

The primary conclusion reached in this study is that positive transfer from Japanese to English has substantially assisted our daughter's acquisition of English literacy skills in many areas. It appears that the competencies underlying literacy performance display different degrees of transferability, and we have differentiated between these factors by separately analyzing features of surface form (spelling and punctuation) from discourse competencies which function as key components of literacy achievement. The high degree of positive transfer of discourse competencies underlying Ellie's reading skills has enabled her to effectively develop her English reading ability despite the limited time spent on English reading tasks. She has not been required to spend as much time learning to read English as her Australian peers; instead, she has invested similar time learning to read Japanese and transferred the underlying competencies across to English. Her English reading skills have also been developed to a limited extent by routine practice at home during her periods of residence in Japan.

However, other types of literacy competence display more limited degrees of transferability. Ellie's weak results in spelling, for example, support findings by previous researchers (Cummins, 1991; Genesee, 1979; Gray, 1986), which suggest that this is an area of literacy development that is language-specific and does not transfer between orthographically unrelated scripts. As a consequence, Ellie's spelling acquisition has been limited to her English language input. Since this has mostly occurred at the Australian school, her level of spelling achievement corresponds to her school attendance periods, and is markedly weaker than other Year 3 children in South Australia. Ellie's English writing shows mixed results, since it is seriously impacted by her weak spelling, but she has also been able to transfer many underlying discourse competencies from Japanese.

We have also shown that Ellie's English literacy skills have developed in accordance with the degree of transferability of the underlying discourse competencies, as generally predicted by Cummins (1979, 1984a). Reading skills have been most directly transferable from Japanese, so this has developed as her strongest area of English literacy, followed by her writing skills, which have been transferable to some extent. Knowledge of spelling and language usage has been the least transferable area of literacy skills, and is also Ellie's weakest area in her English literacy.

Regarding our second research question, our family's experience of a supplementary schooling strategy involving regular short-term visits to an Australian primary school has provided clear support for the existence of linguistic interdependence and a common underlying proficiency in literacy skills (Aidman,

2002; Cummins, 1984a; Cummins & Swain, 1986; Kenner et al, 2004; Krashen, 1999; Malcolm, 2003; Oller & Eilers, 2002), although this conclusion is limited to areas of transfer which exclude types of language-specific knowledge. While previous research has identified negative transfer as occurring during bilingual development (Tsushima & Hogan, 1975), we have not found evidence to suggest reduced language acquisition in any areas caused by Ellie's bilingual development, since her spelling performance matches our expectations based on her education profile. Despite relatively short stays in Australia, Ellie was not disadvantaged with regard to her development of English literacy. We consequently believe that a similar education strategy could be used by other families in similar situations, and that improved results could be achieved by targeting the non-transferable areas of literacy development for additional home support.

We conclude this study by making a brief reference to our daughter's progress in English literacy beyond the period of the Australian literacy test. After being alerted to her relatively weak performance in spelling, Ellie's motivation to improve this area of her literacy skills increased dramatically. During her next trip to Australia, she succeeded in mastering the spelling homework each week. Her newly found enjoyment of English reading also helped to extend her vocabulary. Fortunately, her spelling skills appear to have shown marked improvement since this study, when invented spellings were frequently employed.

We plan to continue to encourage Ellie to develop her spelling skills during our periods of residence in Japan, and we believe that an interest and enjoyment in English reading is essential in this process. This research project has also shown us that Ellie's exposure to the literacy achievement of her Australian peers and to the expectations of her teachers has motivated her to develop her English literacy skills even after returning to Japan.

ACKNOWLEDGMENTS

This project has been completed with the assistance of a research grant to the first author by Hiroshima Shudo University. Both authors wish to express particular gratitude to Maria Skouroumounis and Yuko Ochi for assistance provided during the period of this study.

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APPENDIX

Sample Year 3 Literacy Test Questions

The following sample questions for the three sections of the Year 3 BST literacy test are sourced from Curriculum Corporation (2000). Answers to the multiple-choice and short answer questions are shown in italics typeface. Reading texts are not included because of copyright regulations.

Reading Section

Example 1

Read the story *IS THIS THE WAY TO THE SEA?* and answer these questions.

1. What blew Baby Turtle away from her mother?

< answer: *a storm* >

2. Baby Turtle was excited because she

- A. rode in Kangaroo's pouch
- B. met a little girl
- C. fell off Pelican's back
- D. *saw the sea*

3. Why couldn't Baby Turtle walk anymore?

< answer: *because she was tired* >

4. Put these events in the right order.

- A. Baby Turtle met a little girl.
- B. Baby Turtle was blown away.
- C. Baby Turtle saw a strange creature at the Billabong.
- D. Baby Turtle visited the Long Grass Country.

< answer: *B D C A* >

Example 2

Read *CHOCANANA MUFFINS RECIPE*. Then answer the questions.

1. How much wholemeal flour do you need for this recipe?

- A. $\frac{1}{4}$ cup
- B. $\frac{1}{2}$ cup
- C. $\frac{2}{3}$ cup
- D. 1 cup

2. What do you brush with oil?

- A. the rack
- B. the oven
- C. the large bowl
- D. *the muffin pan*

3. What does the writing do?

- A. It tells a story about cooking.
- B. It explains why muffins are healthy.
- C. It argues that banana muffins are best.
- D. *It shows how to make chocolate and banana muffins.*

Writing Section

Example 1

Students were asked to write a story about having an adventure with a legendary creature. They were given some pictures, including one of a huge creature called Big Foot, and one or two sentences giving some details about each creature. (For Big Foot the sentence was: "Everyone knows that I can make myself invisible but I have other secret powers too.")

Example 2

Students were asked to recall a recent class event and discuss it as a whole class. Before the students began writing about it, the teacher reminded them of the importance of purpose and audience. Students could choose to write to a friend or the teacher. The class also reviewed the features of a personal recount.

Spelling Section

Example 1

1. Fran has written a note to her mother. Draw a line under the best word, from the box at the side, to go where there is a row of stars.

Dear Mum
I am going to Paul's place.
We have to work on our project.
Paul's mother ***** I could go there.

sayd sed siad said

Example 2

1. Read what Renata has written about how the sandwich got its name. Draw a line under the best word, from the box at the side, to go where there is a row of stars.

The sandwich is named after John Montague. He was the Earl of Sandwich. His cook brought him ***** meat on bread. That is how sandwiches began.

some som sume sum