The Composing Processes of Three Southeast Asian Writers at the Post-Secondary Level: An Exploratory Study

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The purpose of this study was to explore the writing processes of Southeast Asian students with different educational backgrounds. The secondary purpose was to determine if the methodology used was valid and reliable. Students were given an article to read and then asked to write their opinion about the topic. Students were videotaped as they wrote, with the camera focused specifically on the movement of their pen on paper. They were then interviewed about their writing process and about what they had been thinking during selected pause times, which had been captured on videotape and were played back to stimulate recall of the students' thought processes. Their responses were transcribed and then categorized according to what aspect of their writing they had been attending to during their pauses as well as what strategies they used to help generate a solution to a perceived problem in their writing (Cumming, 1989). The students differed in their degree of metacognitive awareness, their ability to integrate information from the reading into their writing, the amount of attention paid to different aspects of their writing, and the quantity and variety of problem-solving strategies employed. Directions for future research are discussed.

Educators who have worked with Southeast Asian refugees at the college level will recognize two quite different types of students: (a) students who graduated from high school in their native country and have good academic reading and writing skills, but who have not been in the United States for very long, and therefore, have poor oral communication skills, and (b) students who graduated from high school in the United States, have been in this country for a number of years, are fairly fluent and idiomatic in their spoken English, but do not have good academic reading and writing skills.

Cummins (1979) distinguishes between language acquired for basic interpersonal communication and language acquired for academic purposes. Academic language proficiency includes those skills necessary for meaningful communication when the contextual clues of face-to-face interpersonal interaction have been
reduced. He claims (1981) that acquisition of interpersonal communication skills does not necessarily lead to acquisition of academic language skills and that the development of academic proficiency in the second language (L2) is partially dependent on the level of academic proficiency in the native language (L1) at the time intensive exposure to L2 begins. A common underlying proficiency or interdependence of language allows for this transfer of academic skills from L1 to L2 (Cummins & Swain, 1986). Students who have not yet acquired academic proficiency in their native language may thus experience difficulty with academic uses of their second language.

REVIEW OF THE LITERATURE

The arrival of refugees in the U.S. in the late 1970s and early 1980s from Southeast Asia who were not literate in their native languages, and who subsequently experienced considerable difficulty acquiring English as a second language, prompted a number of studies. These studies investigated the role of native language literacy and formal schooling in second language acquisition (Green & Reder, 1986; Robson, 1982; Stephany, 1985). Most of these studies, however, focused on preliterate adults and young children learning English.

Educational Background in Native Language

In bilingual education, there have long been anecdotal reports suggesting that Mexican students who had some education in their native language before immigrating to the U.S. acquired English more successfully and performed better academically than Mexican-Americans who had been educated exclusively in English in the U.S. (Wong-Fillmore & Valadez, 1986).

These reports are consistent with the findings of two studies—one conducted in Sweden of Finnish immigrant students (Skutnabb-Kangas & Toukomaa, 1976) and another of Japanese and Vietnamese immigrant students in Canada (Cummins, Swain, Nakajima, Handscombe, Green, & Tran, 1984). Both studies indicate a direct relationship between the number of years students had spent in school studying in their native language and their eventual academic performance in their second language.

Another study, investigating the refugee/immigrant population at the University of Minnesota (Bosher & Rowekamp, 1993), found that years of schooling in the native language was the most important predictor of academic success in the second language. Indeed, length of residency and years of schooling in the U.S. correlated negatively with academic success.
Finally, Collier (1987, 1989) found that second-language students who were at their age/grade level in their native language and who entered the U.S. school system between ages 8-11, need less time to reach the 50th percentile on academic achievement tests than students who entered the school system between ages 4-7 because they had had more time to develop literacy in their native language. Students who entered school between the ages 12-16 need more time than they actually have remaining in school because of the increasing difficulty of content material at each successive grade level.

Because bilingual education has generally not been available for Southeast Asian students (Ima & Rumbaut, 1989), students from Vietnam, Cambodia, and Laos, including the Hmong, are placed in courses which require a minimum of language skills such as art, physical education, and music (Stephany, 1985; Woods, 1987), in addition to their ESL classes until they reach a certain level of proficiency in English. Many students graduate from high school with limited content knowledge acquisition as well as limited proficiency in reading and writing English for academic purposes (Collier, 1987).

Although there has been increasing awareness and concern at the post-secondary level about the language proficiency and academic preparedness of refugee students (Bosher, 1992; Nadelstern, 1986; Poh, 1988; Stuart & Flinspach, 1990; Terdal, 1985; Verts, 1984), there has been little research to document their needs at the post-secondary level, and even fewer studies that have focused on their acquisition of academic writing skills.

Composing Processes of L2 Learners

Researchers on the composing processes of second-language learners have found evidence of the transfer of first language writing skills and strategies to the second language (Brooks, 1985; Cumming, 1989; Jones & Tetroe, 1987) although the evidence is not conclusive (Carson, Carrell, Silberstein, Kroll, & Kuehn, 1990).

Brooks (1985), in her investigation of the writing processes of five "unskilled" college writers, found that students who had read and written extensively in their native language were able to use those competencies when writing in English, including a sense of audience, a variety of composing strategies, and a fund of implicit models. Students who were not competent writers in their native language, however, had difficulty writing in English.

Cumming (1989) found systematic differences between the amount of attention given to various aspects of writing and the problem-solving behaviors and strategies of ESL students at different levels of writing proficiency in their native language. Second language proficiency added to students' ability to write in the second language, but did not entail "qualitative changes in the thinking processes
or decision-making behaviors used for composing” (Cumming, 1989, p. 121), suggesting the need to distinguish between language proficiency and writing proficiency in second-language students.

METHODOLOGY

Purpose of the Study and Research Questions

The purpose of this study was to investigate the writing processes of Southeast Asian students at the post-secondary level. As mentioned before, educators who have worked with Southeast Asians at the college level have long recognized, at least anecdotally, differences between students who graduated from high school in their native country and students who graduated from high school in the U.S. Indeed, there is some evidence to suggest that students who graduated from U.S. high schools do not do as well academically as students who have graduated from overseas high schools, even though they have been in the U.S. longer and are more fluent in spoken English (Bosher & Rowe, 1993). It was the intent of this study to explore the writing processes of Southeast Asian students, both those who had graduated from overseas high schools and those who had graduated from U.S. high schools.

The research questions for this study were:

1. Do the participants differ with regards to their writing processes, specifically the attention paid to various aspects of their writing? If so, in what ways?
2. Do the participants differ with regards to the strategies they used to generate solutions to perceived problems in their writing? If so, in what ways?

The secondary purpose of this study was to determine the validity and reliability of the methodology used, specifically the use of recall protocols stimulated by the viewing of videotaped pause times and the coding scheme used to analyze the protocol data.

Participants

There were eight participants in the original study: four students who graduated from high school in their native countries and four who graduated from high school in the U.S. Because of space limitations, three were selected for inclusion in this article: one student who was representative of those students who had graduated from high school in their native country, and two students who graduated from U.S. high schools, one of whom was representative of that group of
students, but not the other. The second student who graduated from a U.S. high school was selected because of the academic strategies he successfully employed while completing the reading and writing task for this study, suggesting the importance of individual differences within the refugee/immigrant population of students as well as the importance of using academic strategies to help overcome significant interruptions in educational background.

The participants in this study were all students in an academic language bridge program for refugee/immigrant students in the open-admissions college of the University of Minnesota. Students must have a high school diploma or General Equivalency Diploma (GED) and receive a score of 65 on the MELAB (Michigan English Language Assessment Battery) to be accepted into the college. Students with scores between 65 and 78 must participate in the academic language bridge program. Students who receive a score of 78 or above on the MELAB are exempt from the program.

This academic language bridge program was designed specifically for refugee/immigrant students. It is full-time and, at the time of this study, lasted four 10-week quarters. The program is not a traditional ESL program, with courses at multiple levels in the four skill areas. Rather, the focus is on reading and writing for academic purposes, and the instruction is primarily content-based. At the time of the study, students took four writing courses in the program, completing the equivalent of freshman composition: three reading courses, two of which are adjunct reading courses paired with academic content courses which students also take; a sheltered oral communications course, focusing on group discussion and presentations; and a higher education survival seminar. All of the courses carry college credit; they all count for financial aid; and over half of them count towards graduation.

At the time of this study, these students had already completed two quarters of reading and writing instruction in the program. They had entered the program with similar final MELAB scores (67-70), but the discrepancy in their subscores is interesting to note (see Table 2). Students volunteered to participate in the project, for which they were paid $10 an hour. Their participation lasted approximately four hours.

Table 1 provides background information about these students. Table 2 lists the participants’ scores on the MELAB test as well as the score given the essay they wrote for this study. Although there is some variation in their final MELAB scores, it should be noted that students required to participate in the academic language bridge program score within the relatively small range of 65-78 on the MELAB.

The essays students wrote for this study were scored by two independent raters from the English Program for International Students (EPIS) at the University of Minnesota. At the time of this study, these two raters regularly scored essays from students in EPIS using the Jacobs scale, a 100-point scale that rates essays
**TABLE 1**

**Background Information about Participants**

<table>
<thead>
<tr>
<th>Name</th>
<th>Years of Schooling in L1</th>
<th>Years of Schooling in U.S.</th>
<th>Length of Residency in U.S.</th>
<th>1st-Year GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thi</td>
<td>12</td>
<td>0</td>
<td>1.5</td>
<td>3.80</td>
</tr>
<tr>
<td>Manisone</td>
<td>9</td>
<td>4</td>
<td>7.0</td>
<td>2.53</td>
</tr>
<tr>
<td>Leang</td>
<td>1.5</td>
<td>7</td>
<td>8.5</td>
<td>3.41</td>
</tr>
</tbody>
</table>

**TABLE 2**

**Participants' Language Proficiency Scores**

<table>
<thead>
<tr>
<th>Name</th>
<th>MELAB Objective Score</th>
<th>MELAB Listening Score</th>
<th>MELAB Comp Score</th>
<th>Final MELAB Score</th>
<th>Essay Score for Research Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thi</td>
<td>76</td>
<td>60</td>
<td>73</td>
<td>70</td>
<td>78</td>
</tr>
<tr>
<td>Manisone</td>
<td>51</td>
<td>76</td>
<td>73</td>
<td>67</td>
<td>71</td>
</tr>
<tr>
<td>Leang</td>
<td>68</td>
<td>65</td>
<td>67</td>
<td>67</td>
<td>73</td>
</tr>
</tbody>
</table>

*Note:* The MELAB Objective score includes Grammar, Reading, and Vocabulary.

for content, organization, language use, vocabulary, and mechanics (Jacobs, Zinkgraf, Wormuth, Hartfiel, & Hughey, 1981). Over the years, the range of scores given by raters in EPIS has tended to fall within the relatively small range of 70-80 for students in their advanced-level classes. Thus, while the differences between the participants’ entry-level MELAB test scores and their essay scores seem insignificant, they do in fact represent important differences for the academic language bridge program the students were enrolled in at the time of the study and considering the range of scores typically given essays rated by instructors in the intensive English program at the University of Minnesota.

The first student to be discussed in this article, Thi, was from Vietnam (see Table 1). She completed high school in her native country in 1980. At the time of this study, she had been in the U.S. for a year and a half. She was an “orderly departure” refugee and so had come directly to this country without spending any time in refugee camps.

On entry into the program, Thi had a MELAB score of 70 (see Table 2), based on the following subscores: 76 (Objective); 60 (Listening); and 73 (Composition). The high Objective and low Listening scores are typical of refugee/immigrant students who completed high school in their native country, but who have not been in the U.S. for very long (Bosher & Rowekamp, 1993). The essay she wrote for this research study, which received a score of 78, represents a relatively strong piece of writing. Her GPA at the end of the year was 3.80.
Manisone, the second student, graduated from high school in the U.S. At the time of this study, Manisone had been in the U.S. for seven years. At the beginning of the academic year, Manisone reported having completed nine years of schooling in Laos, but in the interview conducted during Spring quarter, she could not remember how many years she had attended school because she and her family had moved around so much. She spent two years in refugee camps, where she did not attend school, and then started school again in the U.S. in 9th grade. She was in ESL in 9th, 10th, and 11th grades, and was mainstreamed in 12th grade.

On entry into the program, Manisone had a MELAB score of 67 with subscores of: 51 (Objective); 76 (Listening); and 73 (Composition). The low Objective and high Listening scores are typical of refugee/immigrant students who graduated from a U.S. high school and who have lived in the U.S. for a number of years (Bosher & Rowekamp, 1993). Her writing sample was rated a 71 and her GPA at the end of the year was 2.53.

Leang, the third student, also graduated from high school in the U.S. and had been in the U.S. for eight and a half years. He completed only one-and-a-half years of schooling in his native Cambodia, and then after several years in the refugee camps, began school in the U.S. in 6th grade. Because his first school in the U.S. did not have an ESL program, he attended ESL classes in 9th and 10th grades only.

On entry into the program, his MELAB score was 67. His subscores were: 68 (Objective); 65 (Listening); and 67 (Composition). His essay was rated 73, and his GPA at the end of the year was 3.41.

Materials

Students were first given an article to read and were then asked to write their opinion about the topic. The reading was a slightly modified version of an article from a local newspaper, “Test Bias May Rob Southeast Asians of Diplomas—St. Paul Teachers Say English Skills are Overemphasized,” about a recent requirement of all students in the local school district to pass competency tests in mathematics, reading, writing, and language, to graduate from high school and the impact these tests will have on the Southeast Asian community (see Appendix A). The article was selected because of its accessibility to students and because it had the potential to elicit a variety of written responses, from the purely personal to an essay which synthesized and integrated portions of the reading. Some minor changes were made in the article, such as replacing several ambiguous pronouns with noun phrases and rearranging some syntactically confusing phrases to improve the overall readability of the article. Students were given approximately 30 minutes to read the article although they could take more time if they needed to. Students could also use a dictionary if they wanted and were given the oppor-
tunity to ask any questions about the reading before they were given the writing assignment.

The writing prompt asked students to write an essay stating their opinion about whether second-language students should be required to take competency tests to graduate from high school. Having recently completed an opinion piece for their writing course using outside sources to support their opinion, students were familiar with the nature of the writing task they were asked to complete for this study. They were invited to use portions of the reading in support of their opinion, but the instructions were purposely left open-ended since the researcher was interested to see whether and in what ways students would use the reading in their essays. Students were given approximately an hour to write, but could take more time if they needed to. They completed the written task in about an hour.

**Procedure**

In order to explore the writing processes and problem-solving strategies of these students without interrupting them, students were videotaped as they wrote, with the camera focused specifically on the movement of their pen on paper. Immediately after students completed the reading/writing task, selections of the videotape, specifically their pause times, were used to stimulate recall of their thought processes.

During the writing sessions, students were observed from another room. Their pauses and approximately how long they lasted were noted using the counter on the video recorder, as well as when students referred back to the reading or reread what they had written. The longer pauses of at least several seconds were marked for later use in stimulating students' recall of their thought processes. Immediately after students had finished writing, they were interviewed about their writing processes and what they had been thinking about during those selected pause times. The interviews were audiotaped and transcribed for analysis.

Videotaping subjects as they write provides an alternative to think-aloud protocols for an on-line record of the composing process. This technique has been used in studies of L1 composing (Matsuhashi, 1982; Pianko, 1978; Rose, 1984) and by Jones (1985) in his study of monitor use in L2 composing.

Although think-aloud protocols have been widely used for studies in both L1 and L2 composing, there is sufficient criticism of the method to suggest the need for a less intrusive alternative, especially when L2 students are the subjects (Cooper & Holzman, 1983; Cooper & Odell, 1976; Faigley & Witte, 1981; Perl, 1980; Rose, 1984). Of particular concern with ESL students is the fact that many writers may think in their native language as they compose (Cumming, 1989; Jones & Tetroe, 1987). To add the additional task of having to report aloud in English might result in cognitive overload and distortion of the writing process.
Another alternative, assuming the resources are available, would be to have students record in their native languages and then translate their protocols into English.

Rose (1981, 1984) first used the videotape as a stimulus for post-writing interviews. This technique is based on the assumption that the replay will stimulate recall of mental processes that occurred during the writing. Since stimulated recall does not intrude on the actual composing process, Rose argued, it does not lead a student to simplify or hold to the task as think-aloud protocols might do. Furthermore, it allows the researcher to ask questions of the process, thus uncovering "rules, assumptions, strategies, and conflicts that might otherwise go unvoiced" (Rose, 1984, p. 24).

Pauses seem a logical point at which to have students recall their mental processes while they were writing partly because of the convenience of students' having momentarily stopped their writing and partly in hopes that students might be engaging in more conscious planning during those moments, planning which might be more accessible for recall during the subsequent interview.

Matsuhashi (1982) has described pauses as "moments of scribal inactivity during writing [which] reflect time for the writer to engage in cognitive planning and decision making behavior" (p. 270). Writers are generally unaware of their mental processes as they are writing (Nisbett & Wilson, 1977), but as plans and decisions become difficult, conscious attention may return (Scardamalia, Bereiter, & Goelman, 1982; Weigl, 1975). It is those moments of conscious attention during scribal inactivity that the stimulated recall procedure hopes to capture.

DATA ANALYSIS

As stated earlier, the research questions for this study were:

1. Do the participants differ with regards to their writing processes, more specifically the attention paid to various aspects of their writing? If so, in what ways? and
2. Do the participants differ with regards to the strategies they used to generate solutions to perceived problems in their writing? If so, in what ways?

The interview and stimulated recall protocols were measures intended to generate data that would answer these questions. The other measures, participants' pausing behavior and analysis of the written texts, provided relevant, but supplementary information.
Interview and Stimulated Recall Protocols

Immediately after students had finished writing, they were interviewed about their writing processes and about specific pause times during their writing. For the first part of the interview, questions were used to elicit extended responses from the participants about their writing process. The interviews were transcribed and analyzed for themes which emerged from the data (see Appendix B for the interview questions and excerpts from the interviews).

During the second part of the interview, the longer pauses during the writing process, which had been marked by the researcher during the writing sessions, were located on the videotape, as well as the place at which each pause occurred in the student’s writing. (Although the camera could not get close enough during the videotaping to be able to read what students were writing without losing some of the page on the screen, it was easy enough to follow along the contours of the writing afterwards to locate specific points in the essay.) Students were asked to recall why they had stopped writing during those pause times and what they were thinking about. Their responses, or recall protocols, were transcribed and categorized according to what aspect of their writing they had been attending to during each pause and what strategies they had employed to help generate a solution to a perceived problem in their writing (see Appendix C for excerpts from students’ recall protocols). Table 3 explains the coding scheme, adapted from Cumming (1989), used to analyze the data from the recall protocols.

Pausing Behavior

Pauses were used in this study as windows through which to access information about the participants’ writing processes and problem-solving strategies. Because of their importance in this study, the researcher thought it both relevant and interesting to quantify a sampling of the participants’ pausing behavior to determine any general patterns of difference in the amount and length of their pauses and the amount of text produced, particularly in relation to the amount of time spent pausing. Such differences would also be indicative of general differences in the participants’ level of fluency in written English. Therefore, pauses of 0.1 second or longer (Jones, 1985) in the first 10 minutes of each student’s writing process were recorded and then tabulated according to the following categories: the number of words produced, the number of pauses, the average number of words produced between pauses, the total pause time in seconds, the mean pause length in seconds, and the percentage of time spent pausing. The data about the participants’ pausing behavior were then analyzed and compared (see Table 4).
TABLE 3
Coding Scheme for Analyzing Data from Stimulated Recall Protocols

<table>
<thead>
<tr>
<th>Attention to Aspects of Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>GIST</strong> - Substantive content of the writing - the writer’s thoughts or ideas (formulating, considering, reconsidering or searching for content in the writing).</td>
</tr>
<tr>
<td>2. <strong>DISCOURSE ORGANIZATION</strong> - Organization of written discourse, its structure beyond the level of the clause (paragraphs, introduction, conclusion, points, examples, details, summary).</td>
</tr>
<tr>
<td>3. <strong>INTENTION</strong> - Overall purpose of the text or a portion of the text.</td>
</tr>
<tr>
<td>4. <strong>LANGUAGE USE</strong> - Use of English as a linguistic code (grammar, punctuation, orthography).</td>
</tr>
<tr>
<td>5. <strong>PROCEDURE</strong> - Reference to procedural issues from text generation to difficulties with fluency and translation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Problem-Solving Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>PROBLEM IDENTIFICATION #1</strong> - No heuristic search, no resolution.</td>
</tr>
<tr>
<td>2. <strong>PROBLEM IDENTIFICATION #2</strong> - No heuristic search, but with resolution. (Solution to the problem follows from its recognition.)</td>
</tr>
<tr>
<td>3. <strong>PROBLEM IDENTIFICATION #3</strong> - Heuristic search, but no resolution.</td>
</tr>
<tr>
<td>4. <strong>PROBLEM IDENTIFICATION #4</strong> - Heuristic search with resolution:</td>
</tr>
<tr>
<td>A. <strong>ENGAGING A SEARCH ROUTINE</strong> - returning to the text (either the article or the student’s writing), or engaging the student’s memory</td>
</tr>
<tr>
<td>B. <strong>GENERATING AND ASSESSING ALTERNATIVES</strong> - either related to gist or to language issues</td>
</tr>
<tr>
<td>C. <strong>ASSESSING IN RELATION TO A CRITERION, STANDARD, EXPLANATION, OR RULE</strong> - typically to solve a question about language use</td>
</tr>
<tr>
<td>D. <strong>DIRECTED QUESTIONS</strong> - typically wh-questions regarding gist</td>
</tr>
<tr>
<td>E. <strong>SETTING OR ADHERING TO A GOAL</strong> - goals related to specific parts of the text</td>
</tr>
</tbody>
</table>

*Note:* See Appendix C for excerpts from the stimulated recalls of the first five pauses in the students’ writing. The pause times in the students’ writing are numbered and the recall protocols are categorized based on what aspect of their writing students were attending to and what problem-solving strategies they employed.

Written Texts

Although the purpose of this study was to investigate the writing processes and problem-solving strategies of the participants, the researcher thought it both relevant and interesting to look at the content of the essays as well, specifically whether the nature of the participants’ essays was primarily personal and narrative or expository and whether and in what ways the participants used the content and organization of the article in their essay. The essays were analyzed by the researcher, an experienced ESL writing instructor, for these two characteristics.

RESULTS OF THE STUDY

Pausing Behavior

The data about the participants’ pausing behavior, general indicators of fluency in written English, are summarized in Table 4. As indicated in the table, Thi is
TABLE 4
Participants' Pausing Behavior During the First 10 Minutes of Writing

<table>
<thead>
<tr>
<th>Pausing Behavior</th>
<th>Thi (N=30)</th>
<th>Manisone (N=29)</th>
<th>Leang (N=27)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Words</td>
<td>67</td>
<td>119</td>
<td>92</td>
</tr>
<tr>
<td>Total Pauses</td>
<td>42</td>
<td>46</td>
<td>34</td>
</tr>
<tr>
<td>Average Number of:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Words Between Pauses</td>
<td>1.6</td>
<td>2.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Total Pause Time (sec)</td>
<td>441</td>
<td>252</td>
<td>376</td>
</tr>
<tr>
<td>Mean Pause Length (sec)</td>
<td>10.5</td>
<td>5.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Total Time Pausing (%)</td>
<td>73.5%</td>
<td>42.0%</td>
<td>62.7%</td>
</tr>
</tbody>
</table>

the least fluent of the three writers, and Manisone the most fluent, as measured by number of words produced during the first 10 minutes of writing (67 vs. 119, respectively). If we look at another indicator of fluency, the average number of words produced between pauses, Leang and Manisone are about equal in fluency (2.7 and 2.6, respectively), and Thi is again the least fluent (1.6). Thi paused an average of 10.5 seconds for every 1.6 words. Although the length of Leang’s pauses was slightly longer (11.1 seconds), he produced more words in between (2.7). That is, he paused at greater intervals, for longer periods of time.

Manisone, the most fluent of the three writers, spent the least amount of time pausing (42%). If pausing reflects time spent planning, as suggested by Matsuhashi (1982), then she spent the least amount of time planning. In contrast, Thi spent 74% of her composing time pausing, but she produced much less text and at much smaller intervals than Leang.

Leang seems to have the best combination of fluency with the language and pausing for planning. He paused 63% of the time, at greater intervals and for longer periods of time. Matsuhashi (1982) has suggested that “long pauses, accompanied by gazing or rereading activity and by removing the pen from the page, correspond to multiple decisions, generally ones which encompass global issues as well as local ones” (p. 278). The most productive pauses, those that reflect the cognitive processes of more mature writers, therefore, tend to be the longer ones.

Writing Processes

Analysis of the first part of the interviews with the participants indicates very different priorities and concerns about their writing. Thi frequently focused on discourse features of her text, indicating a close relationship in her mind between the content of a paper and its organization:

I focus all of my thoughts in introduction with the problem and... after the introduction I am taking the question in the writing and this question has two main problems.
One is that the necessity of taking the competency test and the other one is the reason. So, I revised my body as two problems and the main part is the reason so I write the reason and the problem and I explained them.

Thi very definitely planned what she was going to write before she wrote it and referred back to her overall plan throughout the essay.

With regards to content, Thi was eager to relate the ideas of the article to her own experiences as a Southeast Asian accustomed to taking language proficiency tests and the experiences of her cousins in the public school system, and she did so in a balanced, integrated way. Her essay is based neither exclusively on personal experiences nor on the ideas of the article. Rather, the article served as a departure point for her own ideas, to which she returned periodically throughout the essay. Thi was very much concerned with the overall development and coherence of her ideas. She "gets stuck" in her words:

... because I want to find out some more explanation about my thinking in the article, but when I read... I re-read my writing. I think that there is no more for to write and because of the ideas when I think after I finish my writing it doesn't relate to the problem in the article so I have to decide how to talk to it.

She paused frequently while she wrote to organize her thoughts and decide how to say something before she wrote it down. She was very concerned about the lack of fluency in her thinking/writing process and frequently complained about the difficulty of thinking and writing in a second language:

I think Vietnamese first and then translate into English. Because I think with my Vietnamese is easier. When I think in English, with English language, my idea is a very slow. So, it's hard for me to start thinking with English... I think and I translate and at the same time I choose the appropriate ideas, appropriate words with the ideas I write. It's difficult...

On the other hand, Thi was very comfortable talking about her writing and was quite articulate in communicating her intentions as well as frustrations.

Manisone is a good example of a writer who does not plan before she writes or while she is writing. She knew right away what she was going to say and "just wrote, it's come out of my head and just wrote it down. That's just my way."

Her essay is based almost exclusively on her own personal opinion. She briefly referred to one of the students mentioned in the article: "Example like Vang said even he did not pass the test. He will retake over and over again until he pass it. No matter how hard it is." Otherwise, her essay relied on opinions she had formed based on her years in the secondary school system.

During the writing process, Manisone was concerned primarily with getting from one sentence to the next such that the overall flow of her ideas did not make much sense: "When I had a hard time to think about the next sentence to continue, so I get stuck." When she got stuck, she did not refer back to the article or reread
more than the previous sentence, nor did she generate alternatives and choose the best one:

... just have only one thing, I didn’t choose anything. Everything I think I just wrote it down and just go on and on. I didn’t go back and read if it make sense or not, grammar, or the sentence.

Leang’s responses to questions about his writing process indicate an approach to academic tasks that is very much grounded in text. He followed the directions carefully and stayed close to the ideas of the article and his assumptions about the teacher’s expectations for academic discourse:

It’s [the essay] based on the article. The idea’s based on the article And to support this article I have to state some of my ideas... Like I’m ESL too... South Asian.

As he read the article for the first time, Leang underlined the main ideas and took extensive marginal notes, which he then presented orally to this researcher when asked if he had any questions about the reading. (Thi took notes on a separate sheet of paper; Manisone neither underlined or took notes.) To get started, Leang had to think a while and then reviewed his marginal notes and reread the directions:

I start first, according to the question, direction, whatever, they say where are you... Should school require the ESL student to take the competency test? So, that’s the question, so I have to answer it right away... what I think... so, here, I answer it first then I... gave my support statement.

Likewise, when he got stuck, Leang went back to the text, to his marginal notes, or to the article itself.

His essay is more like a summary than an opinion piece. He refers constantly to the ideas in the article, and the opinions he expressed as his own, in fact, mirror those of the expert witness in the article.

Stimulated Recall Protocols

Analysis of the recall protocols of Thi, Manisone, and Leang, specifically the attention each paid to aspects of their writing and their problem-solving strategies during approximately 29 pause times in their writing, reveals interesting differences.

Attention to Aspects of Writing. The amount of attention students paid to various aspects of their writing is listed in Table 5. Thi attended to the content (gist) of her writing many more times than Manisone (15 vs. 3). Thi was also more concerned with the organization and structure of her essay (discourse) than Manisone (5 vs. 3). There were qualitative differences as well: Thi planned the overall structure and organization of her essay early on whereas from time to time as Manisone
TABLE 5
Participants' Attention to Aspects of Writing

<table>
<thead>
<tr>
<th>Aspect of Writing</th>
<th>Thi (N=30)</th>
<th>Manisone (N=29)</th>
<th>Leang (N=27)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gist</td>
<td>15</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Discourse</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Intention</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Language</td>
<td>5</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Procedure</td>
<td>13</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Attention to Two or More Aspects</td>
<td>8</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

wrote, she wondered whether or not to start a new paragraph or how to join two sentences.

Thi was frequently preoccupied with her lack of fluency and struggled with how to make her thoughts come more smoothly (procedure) somewhat more than Manisone (13 vs. 10) and considerably more than Leang (13 vs. 3). She is a good example of Krashen's “monitor overuser” (1982) though there is no indication that her concern with fluency interfered with her ability to generate and develop ideas.

Thi attended to more than one aspect in her writing many more times than Manisone (8 vs. 0). Cumming (1989) found that the more experienced L2 writers in his study attended to two or more aspects of their writing to a greater extent than did the basic writers.

Manisone attended to language issues in her writing more than to any other aspect (13 for language vs. 3 for gist, 3 for discourse, 0 for intention, and 10 for procedure). There was also a qualitative difference in the way she and Thi attended to form: Manisone was concerned primarily with spelling and other single-word changes whereas Thi focused on the clarity of her syntax at the sentence level, indicating a greater sophistication in her formal knowledge of the language.

In contrast to Thi, Manisone was uninhibited as she wrote. Her primary strategy for writing was to write everything that came to mind without much planning or decision-making along the way. When the words stopped flowing, however, she had difficulty generating the next sentence.

Leang’s writing behavior more closely resembled that of Thi than of Manisone. He attended to gist just as often as Thi (15 vs. 15) although slightly less to the organization of his essay (3 vs. 5) and a little more to language issues (8 vs. 5). However, he attended to the overall goals of his essay (intention) more than Thi (4 vs. 1) and considerably less on procedural issues (3 vs. 13). Finally, he attended to more than one aspect in his writing almost as many times as Thi (6 vs. 8).
Table 6
Participants’ Problem-Solving Strategies

<table>
<thead>
<tr>
<th>Problem-Solving Strategy</th>
<th>Number of Pauses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thi (N=30)</td>
</tr>
<tr>
<td>#1 No Search, No Resolution</td>
<td>1</td>
</tr>
<tr>
<td>#2 No Search, Resolution</td>
<td>8</td>
</tr>
<tr>
<td>#3 Search, No Resolution</td>
<td>2</td>
</tr>
<tr>
<td>#4 Search and Resolution:</td>
<td></td>
</tr>
<tr>
<td>#4a Search Routine</td>
<td>11</td>
</tr>
<tr>
<td>#4b Assessing Alternatives</td>
<td>4</td>
</tr>
<tr>
<td>#4c Criterion, Explanation, Rule</td>
<td>1</td>
</tr>
<tr>
<td>#4d Directed Questions</td>
<td>?</td>
</tr>
<tr>
<td>#4e Setting Goal</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 7
Comparison of Problem-Solving Behaviors in Percentages of Total Pause Time

<table>
<thead>
<tr>
<th>Problem-Solving Strategy</th>
<th>Number of Pauses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thi (N=30)</td>
</tr>
<tr>
<td>Successful Strategies (#4a-4e)</td>
<td>63%</td>
</tr>
<tr>
<td>Automatic Solutions to Problems (#2)</td>
<td>27%</td>
</tr>
<tr>
<td>Unresolved Problems (#1, #3)</td>
<td>10%</td>
</tr>
</tbody>
</table>

Problem-Solving Strategies. Students’ recall protocols were also analyzed for the strategies they had used during the writing task to help generate solutions to perceived problems. Table 6 provides data regarding the use of various problem-solving strategies across the three participants. Table 7 lists the percentages of total pause time of each participant engaged in various problem-solving strategies.

Analysis of the problem-solving strategies used by each participant reveals some interesting differences. Thi used more successful strategies (63%) than did Manisone (52%). She also used a greater variety of strategies and had fewer instances of unresolved problems (10%) than Manisone (24%). In terms of specific strategies, Thi engaged in more search routines (4a), whether in the text of the original article, her own emerging essay, or in her memory.

Manisone used the least amount of successful strategies (52%) and the least variety (she did not engage in either directed questions—4d or setting or adhering to a goal—4e). She often relied on automatic solutions to problems (24%) and had the largest number of unsolved problems (24%).

Leang used many more successful strategies than Thi (97%), employed almost as great a variety of strategies (he did not engage in 4e—setting or adhering to a goal), and had no instances of unresolved problems. In terms of specific strate-
gies. Leang engaged in almost as many search routines as Thi (4a) and employed more directed questions than Thi (4d).

DISCUSSION AND CONCLUSION

The findings of this study were based on data analysis from four sources—interviews, recall protocols, pausing behavior, and text analysis. The consistency and complementary nature of the findings from these four sources for each of the participants suggests the overall validity and reliability of the methodology used for this exploratory study. With regard to the use of recall protocols, students were quite capable of recalling their thought processes prompted by the viewing of selected pause times on videotape. They were also able to respond to questions posed by the researcher, which as noted by Rose (1981, 1984), added considerably to the richness of the recall data. In addition, the scheme adapted from Cumming (1989) provided meaningful categories for analyzing the protocol data which were easy to apply and interpret. The categorization of protocol data was checked and rechecked several times over a six-month period, which occasionally resulted in multiple categorizations of some data but almost no complete changes, suggesting the overall reliability of the coding scheme.

Analysis of the interviews and recall protocols as well as of the participants’ pausing behavior and written texts indicate interesting differences in the writing processes of these writers and their problem-solving strategies. First, Thi and Leang were much more able to talk about what they had been thinking about at given moments during the writing process than was Manisone. They had greater metacognitive awareness and were able to converse about their metacognitive functioning to a greater extent.

This greater metacognitive awareness is not to be confused with oral language proficiency, since, in fact, Thi was much less fluent in English than either Manisone or Leang, both of whom had lived in the U.S. much longer and had graduated from U.S. high schools. While Thi and Leang had a better vocabulary for talking about discourse issues than Manisone, Manisone and Leang spoke with greater grammatical accuracy and with much greater ease.

Scardamalia and Paris (1985) have suggested that explicit discourse knowledge aids mature writers in planning and problem solving through the use of explicit mental representations of structure, gist, and intentions. "Abstract representations free writers from needing to carry in active memory the resource-consuming representations required to hold precise contents, and thus are particularly advantageous when more than one sentence is being considered" (p. 6). Immature writers, on the other hand, use explicit discourse knowledge to help solve the problem of what to say next, a knowledge-telling strategy, but do not use more
complex mental representations of their intentions, structure, or gist during the composing process.

Another difference between the three students was the degree to which they attended to the content and organization of their essay. Manisone attended primarily to the generation of text and to surface features in her writing, whereas Thi and Leang attended primarily to the content and organization of their essays though Thi frequently expressed concern about translation and fluency issues.

Finally, an analysis of the essays (see Appendix D) reveals that Thi integrated ideas from the article into her writing to a much greater extent than either Manisone or Leang. Thi tended to synthesize information and opinions from the article, to evaluate them, and even to challenge them. Her response to the problem of competency testing was multi-dimensional and included both a personal and a critical response. Manisone pulled specific bits and pieces of information from the text, which she then copied almost verbatim in her essay, but she relied primarily on her personal experiences to construct her essay. Leang had difficulty breaking away from the article. His essay was more a summary of the reading than an integrated response and analysis of it, and his opinion, hastily tacked on at the end of his essay, mirrored those expressed in the article.

The findings of this study suggest that second language students who may be placed in the same level of ESL instruction, indeed who have similar overall language proficiency scores and writing sample scores, may not be at the same stage developmentally in their writing (Brooks, 1985) and may have very different strengths and weaknesses which they bring to the academic reading/writing task. For example, Manisone was the most fluent of the three writers discussed in this article, yet she had the greatest difficulty generating ideas for her essay, as well as taking ideas from the article and integrating them into her essay. On the other hand, Thi was the most able to synthesize ideas from the article and integrate them into the personal experiences she reflected upon in her essay, but she was also frequently distracted by procedural issues, particularly the process of translating her thoughts from Vietnamese into English. Leang had excellent academic strategies, which helped him understand and use more ideas and more details from the article than the other two students, but he also had difficulty breaking away from the text and establishing a voice and an opinion that were his own, separate from the opinions expressed in the article. Working effectively with these three writers in the same ESL writing course would necessitate not only understanding their individual strengths and weaknesses, but also using a variety of strategies to help each of them build on their strengths, as well as develop the skills necessary to overcome their weaknesses.
DIRECTIONS FOR FUTURE RESEARCH

The nature of this study was exploratory, to determine whether there are meaningful differences in the writing processes of Southeast Asian writers, which might warrant a more extensive research study with a larger number of participants and multiple writing samples, particularly to investigate the role of educational background in the development of writing proficiency in a second language. Educators who work with Southeast Asian students have long recognized differences in this population, at least anecdotally, depending on whether students completed their secondary education in the U.S. or overseas. They have often speculated about the nature of these differences in discussions with colleagues and at conference presentations (Bosher & Rowekamp, 1993; Poh, 1988; Stuart & Flinspach, 1990), but surprisingly little research has been done about these students and their writing processes that would help educators think about the nature of those differences in more objective and conceptually meaningful ways. It is hoped this article has provided a meaningful framework within which to do so and a useful methodology for collecting and analyzing data for a more extensive study. Such research would help document the needs of these students so that educators can develop appropriate materials and pedagogy to facilitate these students’ chances for success in U.S. higher education, and thus for a more meaningful and productive life.

REFERENCES


**APPENDIX A**

**READING/Writing Assignment**

**PART I**

**Directions:** Please read the following article and write down any questions you have as you are reading. At the end of the reading, you will have the opportu-
On November 2, 1989, an article was published in the Minneapolis *Star Tribune* newspaper entitled “Test Bias May Rob Southeast Asians of Diplomas—St. Paul Teachers Say English Skills Are Overemphasized.” That article has been somewhat reorganized and appears below in its revised form.

**TEST BIAS MAY ROB SOUTHEAST ASIANS OF DIPLOMAS—ST. PAUL TEACHERS SAY ENGLISH SKILLS ARE OVEREMPHASIZED**

Many Southeast Asians, many of whom are A and B students, are in danger of not graduating from the St. Paul public schools because of what their teachers say is an overemphasis on English skills in the school district’s competency tests. As a result, some students have transferred to other districts or left school because they believe they won’t be able to earn a high school diploma in St. Paul.

Beginning with this year’s seniors, all students (both native and non-native speakers of English) must pass competency tests in mathematics, reading, writing, and language to graduate. The requirement is intended to ensure that graduates have a minimum level of knowledge and skills. “It was not intended to deny diplomas to capable, hard-working students, yet this may, in effect, be the case for many of our non-native students,” said Jeff DuFresne, an instructor in English as a Second Language (ESL) at Highland Park High. He estimated that 100 or more Southeast Asian students in the district could be affected.

DuFresne and others said the tests place foreign students, particularly Southeast Asians, at a disadvantage because the tests require a level of English proficiency and, in some cases, cultural familiarity, that recent immigrants have not acquired.

DuFresne also said research has shown that most ESL students entering an American high school with less than four years of intensive English instruction cannot complete or pass a language-based test for which they are given a limited amount of time and for which they cannot study ahead of time.

Blia Vang, 19, speaks five languages and has maintained a B average at Highland, yet Vang has failed two of the competency tests—reading and writing—three times. “Because my English isn’t as good I didn’t understand what they needed me to do,” Vang said. “I think it is fair for me to take the test, but I have to use the dictionary to help me take the test. That is what I need.”

Vang said he will take the tests until he passes them. Other students aren’t as persistent. “I have a friend who went to White Bear Lake because he was scared about the test,” Vang said. Other students have transferred to West St. Paul or Bloomington, where the graduation requirement doesn’t exist.
Naoka Takahashi, a senior at Highland, spent her first 11 years in Japanese public schools, where she studied advanced mathematics. She has been in the United States only six months.

Saturday she took the district’s math competency test and said she believes she failed. She said she might transfer to another district if she does poorly on the other tests.

Harding High Principal Eugene Auck said he has “brilliant” Southeast Asian students who are enrolled in calculus and algebra but who can’t pass the math portion of the test.

DuFresne said it is common for non-native students to fail the math test because it contains word problems. A question might show a baseball seating chart and ask about ticket prices, or show a checking account register and ask about deposits and balances. “For ESL students it is not a test of math, it is a test of reading,” DuFresne said.

In Spring 1988, 60 percent of Asian students failed the math test, compared with 26 percent of white students. Fifty-five percent of Asian students failed the reading tests, compared with 18 percent of white students. Half of the Asian students who took the language test failed, compared with 16 percent of white students. Sixty-nine percent of Asian students failed the writing portion, compared with 39 percent of white students.

Southeast Asian community organizations, teachers and administrators have discussed the problem, and some changes have been made to help the students. Nevertheless, many students still haven’t been able to pass, despite repeated attempts over several years. Some teachers said that while no one wants the students exempted from the requirement, they need more concessions.

After concerns were expressed last year, district administrators said ESL students could have extra time to finish and an interpreter could translate the directions. The district also has provided special coaches to tutor seniors who have not yet passed. They will have at least two more chances to take the test this school year. Non-native students are allowed to use dictionaries for the writing exam, as are other students, but they cannot use dictionaries for the reading or language tests.

The Kocher, assistant director of research evaluation and testing for the school district said the tests were not biased. “If these students are getting the content knowledge out of their courses, then they should be able to pass the tests. And the district is doing a number of things to help all students pass these tests.”

DuFresne disagreed. “For limited-English-speaking students these tests do not measure content knowledge of a particular subject,” he said. “For our students they are reading tests. They measure our students’ ability to read and correctly interpret what is being asked of them.”
END OF READING:

Do you have any questions about the reading? If you do, please ask me. We have time to discuss anything you would like to.

PART 2

Directions: Please write an essay to the *St. Paul Pioneer Press* in response to this article and express your opinion about the following question: Should schools require their ESL students to take competency tests in mathematics, reading, writing, and language to graduate from high school? Why or why not? Please feel free to use information from the article that you think is important or appropriate.

Please use the paper given to you. If you have any questions about the writing assignment, please ask me.

APPENDIX B

Excerpts from Interviews about Students’ Writing Processes

Let’s talk first about what you wrote. Should schools require their ESL students to take competency tests? Why or why not? What were your main points?

A. Thi: I just think the main point in the article is taking the test by the Asian students. So I focus all of my thoughts in introduction with the problem and... After the introduction I am taking the question in the writing and this question has two main problems. One is that the necessity of taking the competency test and the other one is the reason. So, I revised my body as two problems and the main part is the reason so I write the reason and the problem and I explained them.

B. Manisone: Ok. They should have the test to improve and keep their background learning English. They can have more skills.

C. Leang: My main point’s that they should know, that they should know better in order to get to the next step to get college or whatever they should be able to know something. That’s my main point. Yes.

Was this a difficult topic for you to write about? Why or why not?

A. Thi: I think it’s not difficult. Because I am an Asian student so I have some experiences when I take some tests in English. When I have these sort of tests I get problems. There a lot of new words I don’t know, but if I read the whole text I can get what the text requires me to do. Too many days I have been in my course in formal grammar. I have the same experience with the article.

B. Manisone: No. It’s not hard, but I think I jump up and down... Because it
depends on myself. It’s the same situation.

C. Leang: No. I think it’s pretty much related to me. I can write it because it’s related to me and I did state some statement in there too according to the article.

Where did you get your ideas for the writing from?

A. Thi: At first I attacked the ideas of the article. I wrote the problem in the article is limitation of Asian students with the competency tests. I relate this with my experience from the tests that I passed when I come to the United States. That’s all.

B. Manisone: From the article and from your head.

C. Leang: It’s based on the article. The idea’s based on the article and to support this article I have to state some of my ideas... Like I’m ESL too... South Asian.

Did you know right away what you were going to say or did you have to think awhile?

A. Thi: When I read the article I had think right away but when I write because I want arrange my thinking orderly so I have a lot of pauses when I am writing.

B. Manisone: Uh huh. [she knew right away]. Because I think of myself, I didn’t take the test so I don’t know how I go out in the English, so.

C. Leang: I had to think awhile what I’m going to say. When I start this, I think it took me for awhile but I don’t know... 2 or 3 minutes to review my marginal [notes]. What it is they talking about and to write my main ideas for the introduction.

How did you decide how or where to begin?

A. Thi: I think when I read the article I got the problem is the real ability of Asian students when they take competency tests and this is also my experience when I take the tests, many tests. So, I decide my introduction by the... I put the ability of Asian students in my introduction... I want to focus the problem I got from the article.

B. Manisone: I just wrote, it’s come out of my head and just wrote it down. That’s... just my way.

C. Leang: I start first, according to the question, direction, whatever, they say where are you... Should school require the ESL student to take the competency test? So, that’s the question, so I have to answer it right away... what I think... so, here, I answer it first gave my support statement.

Did you ever get stuck? When did you get stuck and why? What did you do to get “unstuck”?

A. Thi: Yeah. When I stopped, because I want to find out some more explanation about my thinking in the article, but when I read... I re-read my writing. I think
that there is no more for to write and because of the ideas when I think after I fin-
ish my writing it doesn’t relate to the problem in the article so I have to decide
how to talk to it.

B. Manisone: Yes. When I had a hard time to think about the next sentence to con-
tinue, so I get stuck. [What did you do it get unstuck?]. I didn’t go back and
read if it make sense or not. Everything I think I just wrote it down and just go on
and on. I didn’t go back and read if it make sense or not, grammar, or the sen-
tence. [So when you write, would you say that you write everything down
that you think, or do you think about several different things and chose one
thing and just write down that one thing?] No, just have only one thing, I
didn’t chose anything.

C. Leang: Uh huh. Often, I had to think. Some... some part, I had to think back a
little bit, so I had to look up my marginal [notes]. Not just my marginal but like
stating... like counterstatements to defend these statements. You know, math is
not a competency test so I had to think to get the fact... what I’m going to say.
[And so to get unstuck you refer to the article a lot?] Uh huh. Yeah, to the arti-
cle to get some more idea, to refresh my idea.

APPENDIX C
Excerpts from Students’ Stimulated Recall Protocols

Students were asked to look at the decisions they had made as they were writing
by responding to the following question: “At this point you stopped writing.
Can you tell me why you stopped writing and what you were thinking?” The
first five significant pauses in the students’ writing, determined by their length,
were numbered as they occurred during the generation of text. Students’
responses to the above question for each of these pauses were categorized
according to what aspect students were attending to in their writing and the prob-
lem-solving strategies they employed.

A. Thi:

Text

To the Asian students, English proficiency is a problem when they get compe-
tency tests. Although they have had a lot of years in learning English in their
own country, they get trouble in taking tests. (1) As a matter of fact, when the
students study in high school, (2) they don’t learn a lot of new don’t have
enough of (3) too much time for language subject and the teachers emphasize
grammar. (4) Moreover the students don’t have a lot of new words in such as the
technique words (5)...
Responses to Question

(1) Because when I think there are a lot of ideas, some related to the problem in the article and some aren't... when I finish my introduction, at that time I don't know what is going on so I don't know how to start my body. Because I don't know how to start my body, so I re-read the main point in the article. I read the question in the article and I took the main point and I write directly. **DISCOURSE//SEARCH ROUTINE**

(2) At first I suppose I choose when the students study in a high school they don't learn a lot of new words in English subjects, but when I write... this is not right because in my country English is not the main language and the time when the students study English doesn't have a lot of time and I relate because the students doesn't have a lot of time for English subjects. So I changed my mind by taking the point from don't having enough time. So I continue writing my paper. **GIST//GENERATING AND ASSESSING ALTERNATIVES**

(3) I finding the word, the word choice there... When I find the appropriate word I think the word I use before and I change my mind. I choose another word to be appropriate with the letter, yeah, the letter one, the word. You see, I have two processes. The first one and the second one. When I have a pause in the second one, at that time I know I don't find out what I want to write, continue, and so when I write it down I re-read, I remember the first one I use "enough," this word is "enough," appropriate with the idea I think is the second one so I change my mind. **LANGUAGE//ASSESSING IN RELATION TO A CRITERION**

(4) At that time I want to explain more the idea I got when I emphasize, the teacher only emphasizes grammar and because I want to explain more... I just think when I study English in my high school in my country, in English class I only study grammar and I don't study another technique and just general words in English, I don't study technique word so that's why I lack of knowledge when I take the test. That's the reason why I want to explain more, the teachers emphasize the grammar, I mean, grammar on general words, not technical words. **GIST//SEARCH ROUTINE**

(5) My thoughts is stuck so I think, I stop and I think and I apply the idea that isn’t easy to write continuously... You know because when I write with my thoughts, of course my thought is not continuously so I have a lot of pause... when my thought is continuous I can write easily and when my thought is stuck I stop and I think again, again. **PROCEDURE//PROBLEM IDENTIFICATION #3**

B. Manisone:

Text

In my opinion according to this article, I think each school in the united states, before they are going to get diploma, they have to take the test in case (1) to measure...
their knowlege. Since I have seen myself, I graduated without any test of my lan-
guage I have very poor in my English language. (2) The result it shows when I attend
in the college. I don’t have enough knowlege and also my english was poor.
The (3) reason that I want schools should have (4) the test before graduate because
each students should know more (5) have to have a quality, after able to know
contain of language...

Responses to Question

(1). I going to say something with my idea, not come out so I just erase it out and
continue with the other one. [Do you remember what you were going to say?] “In
case” something. PROCEDURE//PROBLEM IDENTIFICATION #1

(2). What I’m going to say next, connect sentence. DISCOURSE//SEARCH
ROUTINE

(3). I think should this one go the same paragraph or not... It’s a new idea. DIS-
COURSE//SEARCH ROUTINE

(4). Idea to write. Yep, I think I say more than one time so I just think what should
I write. [You say what more than one time?] Test. LANGUAGE//PROBLEM
IDENTIFICATION #2

(5). Because I think maybe to continue this sentence, I say “should know more”
what, I don’t know what to say next, “should know more...” I don’t know what
word to go next. LANGUAGE//PROBLEM IDENTIFICATION #1

C. Leang:

Text

According to this article about the Southeast Asian have failed the competency test.
Mr. (1) Dufresne an instructor in ESL stated that because of the language. (2) He
gave one of the examples in Math - the word problems, math is not the test but read-
ing. (3) Therefore many of the Southeast Asian seek to transfer to other school like
(4) West St. Paul or Bloomington where there is no graduating test. For this, I think
(5) the competency test is not fair for Southeast Asian.

Responses to Question

(1). I was thinking to get some proof that I, see I wrote this according to this arti-
cle, fail the, Southeast Asian fail the competency test, so, why? So I’m thinking back
to get a statement to defend, because of the language. INTENTION, GIST//
DIRECTED QUESTIONS
(2). It’s part of, you know, introduction, it’s kind of hard for me to concentrate. So, I have to stop often, to think and at this point, umm, in order to… I kind of like answer myself step by step. See… because of the language. In what way of language and then it said math, the word problem, and yeah, that’s why I said “math—the word problem is not the test”. DISCOURSE, GIST/DIRECTED QUESTIONS

(3). “Math—the word problem is not the test but reading.” And I look at… I look at back… umm, yeah, to make sure that I stated it right. GIST/SEARCH ROUTINE

(4). Oh, yeah, I have to state my main point, to state that, therefore me as a student, South Asian, seek to transfer to other school. Like what school? So, St. Paul or Bloomington, from the text. DISCOURSE, GIST/DIRECTED QUESTIONS

(5). I was thinking that the test not fair for those students, you know, is… um… I wasn’t thinking that they transfer to other school, and it’s not fair, you know, why should they have to transfer to other school? I state they you see some students have high knowledge in doing, at something else. GIST/DIRECTED QUESTIONS

APPENDIX D

Students’ Essays

The circled numbers on the essays represent the longer, more significant pauses in each student’s writing, which were used to stimulate recall of students’ thought processes during the subsequent interviews.

The other numbers represent all pauses of 0.1 second or longer during the first 10 minutes of each student’s writing, which were tabulated and analyzed for each student’s overall pausing behavior.
Directions: Please write an essay to the St. Paul Pioneer Press in response to this article, and express your opinion about the following question: Should schools require their ESL students to take competency tests in mathematics, reading, writing, and language, to graduate from high school? Why or why not? Please feel free to use information from the article that you think is important or appropriate.

Please use the paper given to you. If you have any questions about the writing assignment, please ask me.

To the Asian students, English proficiency is a problem when they get competency tests although they had a lot of years in learning English in their own country. They get trouble in taking tests.

As a matter of fact, when the students study in high school, they don't learn a lot of language subjects. Moreover, the students don't have a lot of new words in such as the technique words. Asian students only learn English in grammar and some general readings. But the subject math, they learn other subjects like math which belong to science in Vietnam their own language. So they get difficulties when they take math tests in English.

Otherwise, knowledge that they get from high school are not enough to take writing or reading tests because there are a lot of new words in the tests.

In general, it's really difficult for Asian students to take the competency tests in mathematics, reading.

In the article, the writer focuses on the challenges of the Asian students in taking competency tests in English. The writer points out that the students have had a lot of years in learning English in their own country but still face difficulties in taking competency tests. The writer suggests that there is not enough knowledge from high school to help them with the tests, especially in math, where their foreign language skills are challenged. The writer also mentions that Asian students only learn new words in grammar and general readings, which is not adequate for the demands of competency tests.
writing but because of many above limitations... But
taking the competency test should be required because
it evaluate the real ability of the students on
foreign language. It also makes the opportunity
for the students to spend a lot of time for preparing
their English learning. In the time for they
prepare for their tests, they will have too much
time to find out more new words, new p. in,
math to, writing or reading tests. They will
study more so they can have a minimum level
of knowledge that is needed for them in taking tests.

Another opportunity for the student taking competing
the tests is the students get experience how the tests
are, what requirements are needed in taking the tests.
From that, it is expected that students will do better for the later
time. In other time:

In short, the real ability of the students on
learning foreign language only is provided by
taking the competency test. From the result of the tests,
students will find out their weaknesses to improve
their future. In order to get this, the
students must increase their knowledge by reading
a lot, besides the required one readings in
their subject, they also read many other sources
from newspapers, magazines, technique books to raise their
vocabulary.
In my opinion, according to this article, I think each school in the United States before they are going to get a diploma they have to take the test to measure their knowledge. Since I have seen myself I graduated without any tests of my language I have very poor in my English language. The result it shows when I attend in the college, I don't have enough knowledge, and also my English was poor.

The reason that I want schools should have the test before graduate because each student has to have a quality able to know content of language. Other wise when they want to continue their education it will be a problem just like me. However, even they can not pass it, they have to do over and over again. Also I think they may need help a lot from tutor or other teachers because English is hard, they have to spend more time on it.

It is a good way that schools have a test. Otherwise, graduate students from high school will be unable to know anything about themselves. Example like Vang said, even he did not pass the test, he will re-take over and over
again until he pass it. No matter how hard it is. This is the way that students should do, each one should have quality in study as a student. However I think students should improve their skill in studying. And in the future we will have more smart people than before.

If all ESL students don't have to take a competency test in math, reading, writing and language, the result would be bad, such as they are not going to have a good education and don't know the importance of learning. They may know too little, but can not do any goods. They might just get diploma without knowing anything. They don't know what have they learned? Sometimes, the thing that they have learn in classes may not help them at all. They just want to over with instead of study which mean they didn't learn and know what they learned? Some reason in classes, they cheat too much, they didn't even know much but they still get on A or B. Some people just need a pass grade in order to get diploma. They don't care that they know or don't. So the test should be require.
to them for testing what they learn a know

ning subject before they graduate. Also,
to improve themselves, \\

of them have to have the
same quality as an American.

American students, in the same
level or same knowledge. On the other
hand I think ESL students should
prepare and have time to study the
example of the test, especially with English
reading, writing and language before taking
a test.

Anyway it is a good idea to have ESL
students take tests before they have diplomas
in order to give them a background of studying,
and makes them work hard and concentrate
to study. Test may make them work hard, make them study more, when they need
a diploma and finish high school and include
making them a good future, easier if they want to attend college.
According to this article about the Southeast Asian language, the competency test was difficult. An instructor in ESL stated that, "Because of the language," he gave one example of Math: the word problem was not the least bit confusing. Therefore, many of the Southeast Asian seek to transfer to other schools like West High School in Bloomington, where there is no graduation test. For this, I think the competency test is fair for Southeast Asian. For me, some students have high knowledge in doing something else. An example of Blas Navas who speaks five languages and works as a translator studied an advanced math in her country. Their competency test is not fair to ESL students because some of them only being in the US less than four years. Like Natas, I have been in the US only six months. So I think it is very hard for ESL students to do the math. But anyway, I strongly agree that the competency test should show ESL students to use their
dictionaries and provide tutors to translate the vocabulary phrases in order to help the students understand what the question is being asked for and therefore they could have the chance to graduate from high school.

Again according to Mr. Depree, that the test is not measure the Southeast from content knowledge but the reading make sure that they understand text math word problems. I'm kind of side-tracked in agreeing with Mr. Depree about the math. Since there is going to be a tutor to help the ESL students, I think the competency test should include math, reading, writing, and language. In my opinion, the competency test should be prepared for the students well for their next steps in college or the U. The students should know or learn something before they graduate and not just for ESL students but native speakers, too. So my main point for the Southeast Asian students to take the competency test is unlimited the time, so that they have the chance to ask the tutors and think it deep how to solve.