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SJSU LLD 99 students reading and writing strategies and their WST performance

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**SJSU LLD 99 STUDENTS' READING AND WRITING STRATEGIES
AND THEIR WST PERFORMANCE**

A Thesis

Presented to

The Faculty of the Department of Linguistics and Language Development

San José State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Iris Dolores Thot-Johnson

May 2002

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ABSTRACT

SJSU LLD 99 STUDENTS' READING AND WRITING STRATEGIES AND THEIR WST PERFORMANCE

by Iris Dolores Thot-Johnson

The purpose of this study is multifold: (1) to describe the academic background of students enrolled in LLD 99 classes during the summer of 2001 at San José State University, (2) to study the kinds of reading and writing strategies these students use, (3) to assess their perceptions with regard to the validity of the Writing Skills Test (hereafter WST), and (4) to explore whether their background, their use of certain reading and writing strategies, and their perceptions with regard to the validity of the WST have any significant correlations with their test performance.

A 48-item questionnaire was used to collect the data. Results showed that students preferred some strategies to others and that three strategies positively correlated with passing scores on the WST. There were also positive correlations between prior elementary and/or high school education in English and passing scores.

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Chapter I

Introduction

Ever since the author began her school career, she can remember that exams of all types scared her to death. She has always been what has been deemed a “bad test taker.” Her combined SAT and GRE scores were so low that looking at them one would never have envisioned that she was intelligent and would go on to attend such venerable schools as UCLA and Claremont Graduate University. Needless to say, she has sympathy for the subjects of her study, who have failed the Writing Skills Test more than once. The emotional anguish and anxiety they must be going through must be great, indeed.

The author hopes that this study gives voice to the students stuck before the immense hurdle of what is the WST, especially those who are English as a Second Language students, and for whom this exam epitomizes an even greater obstacle than it does for native speakers. To all students who fail the WST, the author wishes that this study may shed some light on their struggle and make their leap over the WST hurdle an eventual reality.

This chapter is divided into five sections: Section 1 provides a brief history and description of the WST. Section 2 describes the academic profile of LLD 98 and 99 classes. Section 3 reviews literature on learning strategies. Section 4 describes what is

meant by face validity and why it matters, and section 5 sets the overall goals of this study.

1.1 Writing Skills Test: History and Description

In the wake of a noticeable decline in the quality of student writing, in 1975, the California State University System Chancellor's Office established a task force to investigate the state of affairs. On the basis of the recommendations in the report, the Chancellor's Office mandated the 19 universities that made up the California State University system to "institute a Graduate Writing Assessment Requirement (GWAR) for all graduate and undergraduate students approaching graduation" (Obrecht & Ferris, 1998, p. vii).

Today, the GWAR has taken on a myriad of names throughout the CSU system. It is called the WEST (Writing Effectiveness Screening Test) at Chico, the EWP (Examination in Writing Proficiency) at Fullerton, the WPE (Writing Proficiency Examination) at Long Beach, Los Angeles, Northridge, Sacramento and San Luis Obispo, the GWE (Graduation Writing Examination) at Dominguez Hills, the UDWCE (Upper Division Writing Competency Examination) at Bakersfield, the UDWE (Upper Division Writing Examination) at Fresno, the GWPE (Graduate Writing Proficiency Examination) at Humboldt, the GWT (Graduation Writing Test) at Pomona, the WREE (Writing Requirement Exemption Examination) at San Bernardino, the UDWT (Upper Division Writing Test) at San Diego, the JEPET (Junior English Proficiency Essay Test) at San Francisco, the WEPT (Written English Proficiency Test) at Sonoma, and the WST (Writing Skills Test) at Hayward and San José. The Stanislaus campus is the only school

in the CSU system that does not yet have a test to assess writing, but requires classes, instead.

Among those campuses that do have the test, there is not much uniformity. The test is optional at six schools (Bakersfield, Dominguez Hills, Fresno, San Bernardino, San Diego, and San Luis Obispo), and takes many different forms. Although an essay portion is included in the writing exam at all the schools that offer it, some schools require test takers to write one essay, while others two essays. Also, some institutions allow 60 minutes for the essay, and some others 90 minutes. Furthermore, some institutions require a multiple-choice portion of the GVAR, as well. The essay portion is graded and scored holistically by faculty at the respective campuses. ¹

At San José State University, the GVAR is known as the WST and is made up of one 60-minute essay and a 45-minute long standardized 72-item multiple-choice format test. The second portion of the test is actually the English subtest of the ACT, from American College Testing and consists of 75-questions, for which students have 45 minutes. ²

A passing WST score is not only a requirement for undergraduate graduation (as well as for graduate education at selected departments) at San José State University, but is also a necessary requirement for taking what are called advanced General Education courses. Those who pass with a certain score get a waiver exempting them from a writing course called 100W. Those undergraduates who pass with a lower score must subsequently enroll in 100W. Those graduate students who pass with a lower score may enroll in 100W or an equivalent graduate course.

Those who fail once can take the test again, but if a student fails twice, he or she must enroll in either LLD 98 or 99 (LLD is an abbreviation for the courses offered in the Department of Linguistics and Language Development). Once students pass either class, they must take the WST again. If they subsequently pass the exam, they must take 100W (an out-right waiver is only allowed on the very first try of the WST). If they fail again, they must keep trying to pass the WST. They will not be cleared for advanced GE courses or 100W until they pass the WST.

1.2 LLD 98 and 99 Classes

The LLD 98 and LLD 99 classes are for students who have failed the WST two times. Although LLD 98 and 99 are three-unit courses, they do not provide students with graduation credits.

LLD 98, also called Applied Grammar, is a class that teaches students the knowledge and application of conventions in English grammar. This course focuses on writing structures and their applications. The class is required for students who failed the WST with scores in the bottom half of those failing the test.

LLD 99, on the other hand, concentrates on expository and argumentative writing. Also called Grammar for Writers, this course teaches students the nuts and bolts of mechanics and composition. The class is required for students who fail the WST twice, with scores in the top half of those failing the test.

The ultimate goal of LLD 99, as well as of LLD 98, is to enable students to become independent readers and writers so that they can pass the WST, and be ready for

writing classes such as 100W; a further goal is to prepare them for advanced GE and other upper-division courses.

The LLD 99 course was selected for this study for two reasons: 1) The students enrolled seemed to have significant difficulties passing the Writing Skills Test. 2) This course, and not LLD 98, was offered during the first six-week summer session of 2001, which was the period during which the study was conducted.

1.3 Learning Strategies

1.3.1 Self-Report Data and Research on Learning Strategies

The research methodology chosen for this study, the purpose of which was, in part, to recount the learning strategies practiced by students in LLD 99 classes and whether specific strategies aided students in passing the WST, was that of self-report data collection. Due to the relatively short period during which the data could be collected — during a six-week period — and the fact that the researcher was a full-time student and subject to many different responsibilities at the time, certain more time-consuming data collection methods such as observations, face-to-face interviews, as well as studies of a longitudinal nature were ruled out.

The researcher settled on self-report data collection through the means of a survey instrument for three reasons: 1) it could be completed by students in a relatively short period of time (half an hour); 2) data could be collected from all students without the researcher needing to be present, since instructors passed out the questionnaires; 3) data could be collected from many students simultaneously. These reasons for selecting self-report data can also be considered to be some of the strengths of this particular data collection method.

Self-report data were collected, as already mentioned, by means of a survey which students filled out in their LLD 99 class. Yes/no questions about particular strategies were asked; a “yes” response was followed up by means of a “most of the time” and a “some of the time” option.

The researcher recognizes that there are inherent shortcomings in the self-report data collection method. The first and foremost of these is that students may have been trying to please the researcher, thus compromising both the validity as well as the reliability of the findings. Hughes (2000) says that an instrument is valid if it “measures accurately what it is intended to measure” (p. 22). At the same time, it is reliable if it is capable of collecting similar results at different times, during different circumstances, etc.

This method of collecting data thus falls short due to its inherently subjective manner of gathering information, since self-report must rely on a subject’s subjective rendering of information, which can definitely affect validity and reliability. Finally, another shortcoming of the self-report data collection methodology is that subjects do not necessarily have the opportunity to ask the researcher for clarification if they have questions, thus further compromising validity and reliability.

The researcher of the present study attempted to deal with the inherent shortcomings of this method of data collection in several ways. First, memos to both instructors and subjects emphasized the importance of students’ answering questions as truthfully as possible. Second, the student memo emphasized that the data would be kept confidential, thus further underscoring the fact that being honest in one’s answers on the survey would not hurt students in any way. Third, since instructors would be acting as

proctors of the questionnaire, they were encouraged in the memo to e-mail the researcher with any questions they had prior to administration of the survey. The researcher is cognizant of the fact, however, that her methods used to combat the shortcomings of this type of methodology are not a cure-all. Indeed, it is most probable that several threats to the validity and reliability of the results remain despite the researcher's efforts.

Various other researchers have used self-report data in studies of learning strategies. Torrance, Thomas & Robinson (2000) describe a study in which they used self-report data (questionnaires) to ascertain the writing processes of undergraduates at a British university. The researchers dealt with some of the inherent shortcomings characteristic of this type of data collection in two ways. First, this was primarily a longitudinal study consisting of "48 students all of whom completed questionnaires describing their normal writing strategies before starting their course and their writing strategy for a minimum of one essay in each of their three years of study" (p. 184).

Second, in addition to the longitudinal sample, the researchers "collected writing strategy data from two cross-sectional samples" and "also collected one or more strategy questionnaires from a further 122 students who were from the same course but not included in other samples" (Torrance, Thomas & Robinson, 2000, p. 185). The researchers, therefore, increased the odds of getting reliable and valid results due to a large number of final questionnaires as well as the use of more than one sample.

Khaldieh's (2000) study of the learning strategies and writing processes of 43 American learners of Arabic as a foreign language involves self-report, self-observation, and self-revelation. According to Khaldieh, all three types of data collection provide a

different level of perspective to the research study. “In self-reports, learners describe their learning behavior in general statements; for example, they make statements such as ‘I try to be an attentive listener, or focus and locate key words’ (p. 524). Self-observation, on the other hand, examines specific language behavior either in an introspective or a retrospective manner. For example, “I skim through the text, and I try to relate new information to old” (p. 524).

Finally, self-revelation requires learners to “think aloud or write down all mental processes while performing a task” (p. 524), providing a stream-of-consciousness disclosure of information that helps to describe the cognitive processes going on during the students’ performance. Through his merging of three different aspects of self-report data, eliminating his reliance on just one particular type of self-report data methodology, Khaldieh has increased the potential of more valid and reliable results.

A study by Choi (1998) describes the strategic reading of seven students enrolled in an advanced ESL course in Canada. Her research, based largely on self-report data, involved interviewing both the students and their teacher as well as having students fill out a Likert-scale questionnaire. The researcher rounded off her data collection activities by observing the class three times “in order to get a sense of how the class functions” (p. 67). Although conceptually well-thought out, since the researcher deliberately combined the more objective observational data collection method with the inherently subjective self-report method, there were issues with the interviews which contributed to problems with validity and reliability. Choi reports that during the interview process her technique of asking questions “did not seem to create a comfortable atmosphere where students

could freely express their thoughts and feelings...My research was also constrained by the limited number of questions; there may have been other relevant questions that needed to be asked” (p. 67).

A study by Durst (1989) examines the monitoring strategies which eleventh-grade students employ in both analytic and summary writing. Twenty students were observed and tape-recorded while they performed a type of self-report, namely, verbal assertions of the monitoring processes inherent in particular essay writing tasks. According to Durst, students “composed aloud for 30 minutes on a topic based on their reading” (p. 349). The data collection process was repeated once. Although Durst admits that future studies employing “additional methodologies in examining writer’s self-regulatory behaviors are warranted” (p. 359), his technique of combining observation and tape-recording measures together with the self-report methodology helps to counter-balance the possible damage done to the validity and reliability of the study inherent in the latter technique.

A further example of a study of learning strategies which used self-report data as the data collection method is that of Schunk & Swartz (1993). Thirty-three gifted fourth-graders from two classes in a North Carolina elementary school were first given a pre-test to judge their “perceived capabilities for performing five paragraph writing tasks: generate ideas, decide on the main idea, plan the paragraph, write the topic sentence, write the supporting sentences” (p. 226). According to the authors, the reliability of the survey instrument was determined by “using 16 fourth-grade academically gifted children who did not participate in the study” (p. 227); these children completed the instrument twice, two weeks apart. Besides the above-taken precaution to lessen the possibility of

reliability issues, the authors also used other data collection methods in the study besides the self-report technique described above. A goal inventory, which included 18 items adapted from Meece et. al. (1988, in Schunk & Schwartz 1993) as well as a skills test were used to collect data as well.

Kucer (1995) uses self-report as part of his data collection methods in his study of the strategy acquisition process of bilingual 3rd grade students. “Informal literacy assessments...conducted at the beginning of the school year indicated that the children used a limited range of strategies when reading and writing” (p. 21). Besides the self-report method of interviews with the children, Kucer also used oral reading, spelling, and writing samples, as well as observations. Assessment of strategies later in the year was done through observations and informal talks with the subjects. His use of other data collection methods besides self-report ensures that the validity and reliability of the findings are not compromised as much as they would be if the experiment depended on self-report alone.

A study by Chandler (1993) uses self-report exclusively in an attempt to classify the kinds of writing and writers, as well as students’ preferences about the implements they use for the writing task. The study involved “a survey of academic writers at the University College of Wales, Aberystwyth” (p. 32) in the U.K. Questionnaires were used by the 107 students in the sample and included questions such as how often they made use of particular writing strategies as well as how often they used instruments such as a word processor. Although the findings were interesting, this study is subject to more

validity and reliability issues than the above-mentioned studies, since it is based completely on self-report data.

Cameron and Moshenko (1996) describe a study in which 53 twelve-year old children were prompted to give self-report data in the form of oral reports to a researcher while they wrote an essay. Besides the reports which students gave orally during the writing task, each subject was also observed and tape-recorded. Throughout the course of the study researchers found that certain strategies such as “planning and note-making significantly predicted writing quality” (p. 271). The results of the study, although possibly compromised somewhat due to the self-report data, may be counter-balanced by the more objective observations and audio-recordings.

Hirose and Sasaki (1994) write a revealing study about Japanese students’ English L2 expository writing and several factors that might influence the quality of the writing product. This comprehensive study included both quantitative and qualitative analysis as well as different types of data collection which was comprised of a comprehensive English language test for learners of English, a 4-page questionnaire (self-report) in Japanese “asking for information on prior writing experiences, attitude toward writing, and self-evaluation of writing ability in both Japanese and English” (p. 206), writing tasks, a test of meta-knowledge on English expository writing, and a follow-up survey (self-report) on writing processes; this latter survey included questions on strategies including whether students “did any prewriting activities....whether they translated, or what they did when they got stuck while writing; how much attention they paid to

grammar, spelling, content or the overall organization (measured by a 5-point Likert scale)” (p. 207).

By virtue of the fact that the above-mentioned study includes so many different facets of data collection including tests, writing tasks, and self-report as well as both qualitative and quantitative data analysis, the chances of the validity and reliability of the results being affected are less than with a more one-dimensional study.

Bell’s (2000) study of the reading strategies used by postgraduate students of a non-English speaking background studying at an Australian university uses self-report as the only method of data collection. The study, a longitudinal study lasting three semesters, is based on the information provided by a single informant during the course of two interviews, one at the beginning of the study, and the other at the end of the study. Despite the interesting results “showing that there are various subtle changes in the framing strategies used” (p. 1) by the subject between the first and the third semester, the validity and reliability of the results are in question due to the fact that self-report was the only data collection method used and that there was only one subject.

The discussion of the use of self-report data within the realm of research on learning strategies shows that studies such as the present study of the researcher, which rely exclusively on self-report, are at risk of the validity and reliability of the results being negatively affected. It has been suggested through the citation of other studies which have used self-report data to report on learning strategies, that balancing a study with other data collection methods, as well as different analyses (quantitative and

qualitative, for example) and more than one sample, might minimize the risks to validity and reliability which are inherent in the self-report data collection methodology.

1.3.2 Learning Strategies and Learning on One's Own

Scholars, teachers, and students have always been trying to identify the best strategies that they can use to successfully master academic material. In the ancient days, the Romans used spatial mnemonics such as the Loci Method “to memorize speeches” (Wenden & Rubin, 1987, p. 45). Today, students as young as Kindergartners are taught songs and rhymes which are fun strategies for learning days of the week, colors, and the alphabet. Present-day university and college students are required to digest much more complex information than Kindergartners, however.

Strategies are used by learners young and old, although the exact nature of their use changes with the age of the learner. It has been shown that “older children are consistently revealed as active and strategic learners who gradually acquire a repertoire of strategies as they mature” (O'Malley & Chamot, 1990, p. 105), while “young children...may not use strategies spontaneously...” (O'Malley & Chamot, 1990, p. 105).

By the time undergraduates begin their upper-division classes, and certainly by the time they enter graduate school, they realize that among the most important strategies they need to acquire are certain reading and writing strategies that will allow them to become independent learners. Oxford (1990) defines independent learning as the result of a teacher's traditional roles of managerial and instructional tasks becoming “much less dominant” (p. 10), thus allowing students to take on more responsibility for their own learning. The researcher of this study, similarly to Oxford, defines independent learning

as the learning which occurs when a student, after having received strategy instruction from the teacher or tutor, is then able to monitor his or her own learning task, becoming more and more self-reliant with practice.

An example of independent learning is given by Englert, Raphael & Anderson (1992). In their article, the authors detail the modeling of the vocabulary and language they deem necessary for guiding children's inner talk about writing. Initially, say the authors, "the adult models the self-talk and vocabulary related to the cognitive process while performing the actions in the process" (p. 414). However, soon the monologue gives way to a social dialogue "in which the learner assumes increasing responsibility for whatever aspects of the writing dialogue or cognitive process he or she is able to control" (p. 414). Soon the learner, according to Englert, Raphael & Anderson (1992), assumes full responsibility for the dialogue, "using it as egocentric speech that is spoken aloud to direct his or her cognitive activity" (p. 414). Finally, this speech 'goes underground' and becomes "inner speech, internalized and automatic" (p. 414).

Previous research has demonstrated that learning strategies do make positive differences in student performance. For example, after employing vocabulary-related strategies, dramatic "improvements in vocabulary learning tasks presented in one-on-one training have been reported" (O'Malley & Chamot, 1990, p. 7). It is probable that without the use of strategies such as "linking a vocabulary word with its equivalent in the second language" (O'Malley & Chamot, 1990, p. 7), students would not have improved as markedly in their vocabulary learning.

Strategy use seems to play a role in determining how successful and independent learners are going to be. Successful students “learn to adopt active strategies for themselves, incorporating monitoring behaviors into their repertoire of learning skills” (Wenden, 1991, p. 13), while “less successful students apparently do not, continuing to rely on teachers for this function” (Wenden, 1991, p. 13).

Wenden (1991) suggests that those students who do not learn to internalize strategies may be the ones who have difficulty upon entering college, where most students are expected by their instructors to be independent learners. However, for many students, especially ESL students, just sitting in a class specializing in learning strategies does not mean that they will have internalized them. Strategies, just like academic skills such as reading and writing, must be taught in such a way that students can understand them and feel comfortable using them.

Hosenfield (1995) suggests that there are several research topics in the field of reading strategies that need to be developed for ESL readers. These include collecting data on what “novice, advanced novice, proficient, and expert ESL readers do cognitively with different types of reading tasks” (p. 28). According to Hosenfield, cognitive apprenticeship programs can teach ESL students at different levels to internalize reading strategies through modeling.

Teaching students the correct strategy use is teaching them how to become autonomous learners. Wenden (1991) defines autonomous learning as being typical of those “who have acquired the learning strategies, the knowledge about learning, and the attitudes that enable them to use these skills and knowledge confidently, flexibly,

appropriately and independently of a teacher” (p. 15). According to Wenden (1991), autonomous learners are self-confident learners — “they believe in their ability to learn and to self-direct or manage their learning” (p. 53), and they derive “energy and motivation from knowledge of...errors and continue[d] to work even harder” (p. 53). The researcher of the present study shares Wenden’s definition of autonomous learning, placing its definition on a par with that of independent learning.

The discussion of learning strategies in this section has concentrated on teaching students to use strategies so that they can eventually become independent or autonomous learners. This is important, since it has been shown that successful learners are often more apt to be independent and/or autonomous learners.

1.3.3 Reading Strategies

Sears (1999) found while working with children that a phonological reading strategy was the most prevalent and the most related to deciding a child’s end-of-year reading achievement in a whole language classroom; “children frequently used information about initial letter sounds to substitute whole words for unfamiliar text” (p. 97). Most importantly, and perhaps curiously, was the fact that this strategy emerged “despite the absence of formal phonics instruction in the first year” (p. 97), suggesting that this strategy had emerged “naturally” as a result of other strategy instruction.

Another study with children conducted by Moore & Wade (1998) found that students who had taken part in a reading program for poor readers called ‘Reading Recovery’ used a comparatively higher number of strategies while “analyzing and cross-referencing...the clues available to them” (p. 26) than children in the comparison group.

Spiegel (1999) suggests using a strategy focus with a child if “the child cannot move around roadblocks met when interacting with whole text” (p. 254). However, Spiegel goes on to say that advocating the use of strategies in every situation may not be prudent since students may become too dependent on them, not able to use them in anything other than in artificial texts, for example. She suggests moving towards more of a holistic focus if the child is practicing the strategy only within artificial texts or if he or she cannot seem to transfer the strategy to authentic texts.

The younger the child, the easier it will be for the child to learn, internalize and use a strategy naturally. However, what sorts of results have there been with adult learners?

Saito’s (1998) study of Japanese high school EFL learners showed that students who were given “contexts to infer the meanings of unknown words before reading” (p. 84) did better on a post-reading test than those who were presented only with lists of unknown words. Furthermore, for the students who guessed the meanings of unknown words through the reading context, their meanings were found to be retained longer than for the students who used only the word lists.

The implications of Saito’s research are clear: English teachers need to “recognize the learning effect of unknown word inference strategy and improve our teaching techniques to help our students learn new vocabulary” (Saito, 1998, p. 90). Students most probably do better with this type of content-embedded reading strategy because it results in enjoyable reading.

Finally, it is important that in order for strategies to work, students should internalize them, allowing for natural use.

1.3.4 Writing Strategies

Unlike reading, writing is more personal to students. Students can choose the books they read, but the book is never entirely theirs. With writing, on the other hand, students do have the opportunity to make it theirs.

Teachers can help students navigate through the maze of writing through helpful comments. Teachers can also teach them to comment on, or self-assess their own work. Marting (1991) says that instructors can develop in students awareness of writing as a decision-making process by teaching them writing strategies. Some of these writing decisions are reflected in the following questions: “How did you come to select this topic?” “Describe how you went about writing this particular paper.” “What strategies did you use to get through the difficult parts?” “Identify three major revisions you made in this paper.” “Why did you make them and what effect did they create?”

According to Marting (1997), what transforms students into writers is “the understanding of the self as a writer and the development of the discerning reader in the writer...Providing students with the opportunity to reflect on the writers inside themselves puts them on that road” (p. 132).

In addition to internal reflection strategies for writers is the idea of oral strategies. Kock (1994) suggests that “the best writing strategies for generating more and better content are really just written counterparts of behaviour patterns natural to speech” (p. 63).

One of the best strategies for apprehensive writers, according to Kock (1994), is the oral strategy entitled “Start Anywhere.” This seems to be good advice for students “who think they have to figure out the entire outline and content of their text before they can start drafting it” (p. 65). What this particular strategy does is to transfer an aspect of the way one speaks into the way one writes; “So, what we’ll do is start with anything — for example with a case or anecdote that has something to do with the matter” (p. 65).

A study by Englert, Raphael, and Anderson (1992), which focused on the topic of improving students’ knowledge about writing, indicated that students who had taken part in a socially mediated writing intervention program that had an emphasis on the process of writing, writing strategies, and the role of teacher-student and student-student dialogue seemed to have good metacognitive knowledge about writing. Further, and most importantly, the learning disabled students who had taken part in the study showed “the greatest progression from an emphasis on other-regulation to self-regulation” (Englert, Raphael & Anderson, 1992, p. 411) in their writing.

Englert, Raphael, and Anderson (1992, p. 412) define self-regulation of writing as the “metacognitive knowledge related to the processes by which writers plan, draft, monitor, and revise expository text,” while other regulation, in their opinion, refers to more dependence on authority figures such as teachers. The researcher of the present study defines self-regulation as it pertains to writing as an individual’s awareness of the steps needed for this skill (planning, drafting, writing, revising, etc.), and the ability to undertake these steps largely independently of a teacher or tutor. Independent and

autonomous learning, while similar to self-regulation, are broader terms and can refer to any skill, while self-regulation is relegated to the sphere of writing alone.³

A subsequent article promoting the use of self-regulation of writing strategies for students is the one by De La Paz, Owen, Harris, and Graham (2000). It discusses the Self-Regulated Strategy Development (SRSD) approach “to help students learn an essay writing strategy (PLAN and WRITE) for a state writing test” (De La Paz, Owen, Harris & Graham, 2000, p. 101). Research shows that SRSD did make significant differences in children’s “planning and revising strategies, including brainstorming, self-monitoring, reading for information and semantic webbing, generating and organizing writing content using story structure, advanced planning and dictation, goal setting, revising using peer feedback, and revising for both mechanics and substance” (De La Paz, Owen, Harris & Graham, 2000, p. 101). These researchers also demonstrated that SRSD led to improvements in four major aspects of student writing performance, namely, quality of writing, knowledge of writing, approach to writing, and self-regulation, thus suggesting that SRSD might be useful for writers of all ages and at every academic level.

Focusing specifically on higher ability students, Schunk and Swartz (1993) found that “providing gifted students with a goal of learning a writing strategy and feedback on their progress raises achievement outcomes and transfer” (p. 229). According to the authors, a strategy goal highlights the use of a strategy as a way to improve one’s writing. If students believe that they are learning a useful strategy, then they will feel at the same time efficient and empowered about improving their writing and shall be further motivated to use the strategy, which subsequently results in increased skill execution. On

the other hand, learners who do not believe a strategy contributes much to their writing do not use it systematically or feel confident about learning.

Torrance, Thomas and Robinson (2000) conducted a study concentrating on undergraduates and identified four distinct patterns of writing behavior:

A minimal-drafting strategy which typically involved the production of one or at most two drafts; an outline-and-develop strategy which entailed content development both prior to and during drafting; a detailed-planning strategy which involved the use of content-development methods (mindmapping, brainstorming or rough drafting) in addition to outlining, and a “think-then-do” strategy which, unlike the other three strategies, did not involve the production of a written outline. (Torrance, Thomas & Robinson, 2000, p. 181)

The poorest results seem to have been produced by the minimal-drafting and the outline-and-develop strategies. The strategies that resulted in higher quality essays were the detailed-planning and “think-then-do” strategies. It was also found that in general, students tended to stick to the same type of strategy throughout the three-year study, which suggests that it is important to teach students strategies that are likely to guarantee success, since, once acquired, these strategies will be used every time they are needed.

According to Spiegel (1999), strategy instruction may not be useful with every student learning to write. Spiegel cautions that strategies are not synonymous with skills and should be used only as tools. “Knowing *about* (italics in original) strategies is of no use. Being able to *use* (italics in original) them is what is important” (p. 252). Thus, internalization of the strategies is the key to success.

Kirby, Liner and Vinz (1988) expand the use of strategies by presenting a vast number of developmental strategies for teaching virtually every genre including personal writing, journal writing, free writing, poetry, expository writing, literary writing, and

research projects. The strategies mentioned by the authors are for teachers, not for students, and are aimed at the beginning teacher of writing. Perhaps what the authors deem most important for writing instructors is a definition of what writing is and the role of the writing teacher:

Writing is a pulling together of that inside stuff. Writing is a rehearsal in meaning making. What we like to call “mind texts.” The teacher’s role in all this is to support those rehearsals, to help kids bring those mind texts to the page as powerful writings... Acting as coaches of writing, teachers can assist students by helping them understand the strategies they are using and suggesting others they might use, by raising questions and more questions as the text emerges, and by encouraging and supporting student decision-making throughout the growth of the piece. (Kirby, Liner & Vinz, 1988, p. 1)

Richardson (1990) offers writing strategies for writers, themselves. The author’s intention is to link “theoretical writing issues and practical writing strategies” (Richardson, 1990, p. 9); she does this by presenting an overview of theoretical issues in writing and by offering strategies on how to reach diverse audiences.

A final resource on writing strategies examines the performance of students in Singapore writing in both English and Chinese. Wong (1993) found that both effective and ineffective writers “use meaning-constructed strategies in their writing, but they differ in the quality of this use” (p. 291). The students who had developed good meaning-constructing strategies in their dominant language were found in the study to be able to transfer these strategies over to the weaker language. However, the author pointed out that “their transfer seems to be more apparent if the stronger language is English” (Wong, 1993, p. 291).

The literature on writing strategies covers a large gamut including strategies pertaining to children, high school students, university students, teachers, and more

experienced writers. Some of the topics surrounding writing strategies which are perhaps the most useful concern student interpretation of teacher comments, self-reflection, oral strategies, strategies that boost metacognitive knowledge, and restricted use of strategies. The preceding section, however, has only dealt with strategies and how they affect students as a whole. The next section attempts to illustrate the research that makes the connection between learning strategies and second language learners.

1.3.5 Learning Strategies and Second Language Learners

As regards learners of English as a Second Language, Wenden and Rubin (1987) found that students identified as good language learners by teachers “do use conscious learning strategies not only in ESL classroom acquisition environments but also in out of classroom acquisition environments” (p. 81).

In order to help students to do better in their second language classrooms, the authors suggest that teachers should initially attempt to find out what strategies students have been using already, if any, and then adapt the instruction accordingly. Whatever a teacher decides to do, it is imperative that learning strategies not be neglected inside the classroom (especially the ESL classroom), since with them students “can make more effective use of the learning opportunities they encounter” (Wenden & Rubin, 1987, p. 82) outside the classroom.

Kang (1999) reiterates the importance of learning strategies for ESL students. In his study of 589 Asian students studying English at intensive English programs in the U.S. and Canada, Kang found relationships between language learning strategies and language proficiency. Kang finds it important to develop appropriate classroom activities

in terms of students' second language learning strategies. He cautions, however, that it can be a difficult task, since as much as "ESL students vary in their characteristics, their learning strategies vary" (Kang, 1999, p. 2).

Concerning foreign and second language writing, Lally (2000), examined the dilemma that many teachers of foreign languages have found, "that there is both little attention paid to writing in the second language (L2) classroom and even less known about the nature of L2 writing" (p. 525). To this end, Lally identified, studied, and compared the writing strategies of nine L2 writers in French to the number and type of strategies used by the same writers in L1 writing in English. The results of the study revealed that there were "differences in both the amount and the type of strategies employed by this group of students while writing in French, compared to strategy use in English" (Lally, 2000, p. 532). One particularly surprising result was that students made more negative affective statements regarding composing in their L1 than in their L2. Examples include: "I'm not a very good writer." "I spell horribly in English and better in French." "My handwriting is large and sloppy" (Lally, 2000, p. 532). Possible reasons for the greater negative feelings the students had towards their writing in English over their writing in French could be ascribed to the fact that students did not expect themselves to be as proficient in their L2 in the first place, and so expectations were lower for the L2.

Khaldieh (2000) found that American learners of Arabic as a foreign language—proficient and less-proficient—"were active users of different learning strategies to

varying degrees” (p. 522) although the more successful learners demonstrated a wider range of strategies than did the less successful learners.

Kim (1999) suggested that learners’ low listening comprehension ability could be correlated with a low number of listening comprehension strategies. He added, however, that less successful listeners “can be taught to use strategies that will enable them to listen more successfully” (Kim, 1999, p. 1).

It is clear from the literature on second language learning strategies that instructors should find out what strategies students use, if any, and then tailor the instruction along these lines. However, this may not be as easy as it sounds, since the strategies students use vary widely, and it has been found that both proficient and less-proficient students use a variety of strategies.

Many educators, primarily those in bilingual education, suggest that reading and writing strategies in one’s L1 will transfer eventually over into his/her L2. Thus, if a child has well-defined text-decoding strategies in Spanish, at some point in the learning process these will move over to English.

Cummins has long advocated the ‘dual iceberg’ theory, or Common Underlying Proficiency Model (hereafter CUP) of Bilingual Proficiency. This model argues against what is called the Separate Underlying Proficiency Model (hereafter SUP). The SUP model proposes “that proficiency in L1 is separate from proficiency in English, and...that there is a direct relationship between exposure to a language (in home or school) and achievement in that language” (California State Department of Education, 1984, p. 22). Cummins vehemently opposes the view that “content and skills learned through L1

cannot transfer to L2 and vice versa” (California State Department of Education, 1984, p. 23). In Cummins’ view, the “data clearly show that well-implemented bilingual programs have had remarkable success in developing English academic skills” (California State Department of Education, 1984, p. 28), suggesting that academic skills learned in L1 do indeed transfer over to L2.

Immersion programs, which follow the bilingual model, are prime examples of how CUP works. Cummins makes the point that the immersion students are learning in a largely naturalistic manner (i.e., via communication more than by overt teaching) and yet subtle indications of transfer have been detected in their lexicon and grammar.

Other researchers besides Cummins have long been fascinated with the transfer factor. Yen-Ren (1996) makes the point that traditional research in L2 writing processes “tends to emphasize the transferability of L1 composing strategies into L2 writing. It has not paid attention to the conditions for the transfer, and the varied effects on L2 writing of different L1 strategies” (p. 135).

Koda (1993) states that “ESL composition-process research has demonstrated that written composition in L1 and L2 share a number of subprocesses” (p. 332), one of those being that L2 composing strategies are based on the individual student’s knowledge of L1. The author points out that several L2 writing studies have demonstrated that L2 writers “rely heavily upon their L1 linguistic knowledge” (Koda, 1993, p. 332), thus transferring any known writing strategies from L1 to L2.

Francis (1992) reports a study done on the reading and writing acquisition of bilingual students (Spanish and an Indian language) in the state of Hidalgo, Mexico. He

found “evidencia de las transferencias de estrategias de lecto-escritura entre la L1 y la L2 (evidence of transfers of reading and writing strategies between the L1 and the L2)” (Francis, 1992, p. 37). This study greatly lends credence to the CUP hypothesis.

According to Peregoy and Boyle (2001), learners who know how to read in their first language do bring sophisticated literacy knowledge to the task of second language reading. In other words, students who already possess the strategies needed to process print in their L1 can perform the transfer from the home language to the L2 in a fairly straightforward manner.

In summary, research suggests that reading and writing strategies do indeed transfer across languages, making it all the more important for instructors of a second language to understand that if students do not possess reading or writing proficiency in their L1, it will be much more difficult for them to gain this proficiency in their L2.

1.4 Face Validity

The face validity, or validity of a test based on whether it appears to be testing what it is supposed to be testing, is of concern to the present study due to the effect it may have on students’ perceptions surrounding the exams they take. A test lacking in this kind of validity, for example, “may not be accepted by candidates...” (Hughes, 1989, p. 27).

According to Hughes (1989) a “test is said to have face validity if it *looks* (italics in original) as if it measures what it is supposed to measure” (Hughes, 1989, p. 27). For example, a purported pronunciation test which does not require those being tested to

speaking “might be thought to lack face validity” (Hughes, 1989, p. 27), even if one could demonstrate that the test was not lacking in construct and criterion-related validity.

The test-taker’s perception of the WST as a valid test is an important variable since the test is a high stakes exam. The outcome of the test has an impact on undergraduate students’ academic careers in that if they do not pass the WST they are not only barred from taking 100W and general education classes, but will not be eligible for graduation. Furthermore, if in the students’ opinion, the WST lacks validity, then “they may not perform on it in a way that truly reflects their ability” (Hughes, 1989, p. 27).

1.5 The Overall Goal of this Study

This inquiry, which surveyed 9 sections of LLD 99 at SJSU during the summer of 2001, has been designed to answer the following research questions.

1. What is the academic profile of the students enrolled in LLD 99 classes during summer 2001?
2. What are the strategies most often used by LLD 99 students with regard to reading and writing?
3. What is the face validity of the WST in general?
4. Do the academic profile of the students, their use of certain reading and writing strategies, and their perceptions of the WST as a valid test have any statistically significant relationships with their test performance?

Notes

1. At San José State University, some scorers teach at surrounding community colleges.
2. The ACT measures students’ understanding of the conventions of standard written English (e.g., punctuation, grammar and usage, and sentence structure) as well as

of rhetorical skills (e.g., strategy, organization, and style). Not tested are spelling, vocabulary, and rote recall of rules of grammar. The test consists of five prose passages, each of which is accompanied by a sequence of multiple-choice test questions. Included are different passage types to provide a variety of rhetorical situations.

Most questions refer to underlined portions of the passage and offer several alternatives to the underlined portion. These questions include "NO CHANGE" to the passage as one of the possible responses. Some questions are identified by a number or numbers in a box; these questions ask about a section of the passage or about the passage as a whole. Within the context of the passage, the student must decide which choice is most appropriate, or which choice best answers the question posed.

Three scores are reported for the ACT English Test: 1) A total test score based on all 75 questions; 2) a subscore in Usage/Mechanics based on 40 questions; 3) a subscore in Rhetorical Skills based on 35 questions.

3. In light of the terms independent learning, autonomous learning, and self-regulation, the reader can gather that the researcher of the present study considers independent forms of learning to be important; however, it cannot be denied that the independent learner is somehow linked to the fundamentally social nature of learning through his or her reliance on social strategies such as getting help from peers and the teacher, group work, and strategy instruction provided by instructors.

Vygotsky (1997) states that "education, in every country and in every epoch, has always been social in nature, indeed, by its very ideology it could hardly exist as antisocial in any way" (p. 47). How does one, therefore, reconcile independent learning with social learning? Rogoff and Wertsch (1984) take Vygotsky's view that the "individual response emerges from the form of collective life" (p. 1). Thus, the social nature of learning must precede any form of independent learning.

O'Malley & Chamot (1990) show how the social and independent aspects of learning are intertwined. They talk about scaffolding instruction, "in which the teacher provides temporary support to students as they try out the new strategies" (p. 161). This social support system is then withdrawn little by little, until, ultimately, the student is learning on his or her own. For Vygotsky, this is the goal: "Education should be structured so that it is not that the student is educated, but that the student educates himself" (Vygotsky, 1997, p. 48).

Chapter II Methods

A large portion of this study attempts to describe how frequently certain reading and writing strategies are used by students enrolled in LLD 99 classes in the summer session of 2001. The data were obtained by administering a 48-item survey questionnaire. The survey was a modified version of an instrument originally developed by Dr. S. Vanniarajan and used by Dr. S. Vanniarajan and Dr. M. Bean in another similar research project on LLD 001 students.

The survey questions were based on the subskills that are essential components of reading and writing, such as critical thinking, top-down processing, summarizing, making an outline, developing grammaticality awareness, revising the drafts, and planning an essay in advance. The overall attempt was to learn about the kinds of strategies students generally used based on self-report. It must be pointed out, however, that the validity of data based on self-report is compromised somewhat due to the subjective nature of student responses.

Another factor that might affect the validity of the results is the fact that it is not known how students interpreted the context of the different strategy use questions. Since students were not given specific guidelines as to the context, it is not possible to be sure whether the subjects were answering in terms of strategies they use for writing a paper in

college, or writing a letter to a friend, etc. It should be mentioned that this, too, could throw off the validity of the results.

A further factor that may affect the validity of the results is that it is not known how familiar students were with all of the strategies in the questionnaire (e.g., had they been taught them, did they even know what certain strategies were, etc.). For this reason it should be acknowledged that the trustworthiness of the responses may be compromised.

Problems with the survey notwithstanding, the importance of understanding which strategies students (according to self-report) use and don't use is vital to LLD 99 and 98 instructors so that they may focus their instruction to better serve students' needs to pass the WST.

2.1 Survey/Interview Protocol

The questionnaires were distributed to students by the instructors of each class. Instructors received the questionnaires in the department office. The coordinator of the LLD 99 classes for the summer sent voice-mails to all the instructors informing them when they would receive the questionnaires and that students should take the surveys home and return them within a week.

When students brought them back, instructors put them in a special box in the Linguistics and Language Development Office. The researcher, in turn, came into the office almost daily and collected the surveys.

2.2 The Questionnaire

The items in the questionnaire could be studied under 3 broad sections. They are: (1) Background Information, (2) Reading and Writing Strategies and (3) Face Validity. Section 2 had the following subsections: vocabulary comprehension and use, reading comprehension, improving grammatical ability, improving writing skills, and reading habit.

2.3 Student Identification

Question number 2 required the students to provide the researcher with their social security numbers. The social security numbers were important to the study, since this was the means by which the individual WST scores would later be obtained and be correlated with student reading and writing strategies.

2.4 Response Rate

There were a total of 175 students enrolled in the 9 sections of LLD 99 during the summer of 2001. Instructors distributed the questionnaires to students and instructed them to take the surveys home in order to complete them. One hundred thirty-eight surveys were returned, which was a response rate of 79%, which is considered very good by survey response rate standards. Out of these 138, 99 students had provided their social security numbers and of those 99, only 77 took the exam on July 14, 2001. These 77 students made up the sample population.

2.5 Statistical Techniques

All the items were analyzed using SPSS version 7.5 for Windows.

2.6 Background Information (Items 1-12)

This section made an attempt to obtain information about basic background information of LLD 99 students. The respondents were required to provide the information below. Please note that not all students supplied the information asked for (this is particularly true for the first two items).

- #1: Last and first name**
- #2: Social security number**
- #3: Gender**
- #4: Academic level (Graduate/Undergraduate)**
- #5: Major**
- #6: Native Language**
- #7: Perceived current reading ability in English**
- #8: Perceived current reading ability in Native Language**
- #9: Perceived current writing ability in English**
- #10: Perceived current writing ability in Native Language**
- #11: Medium of instruction in their primary school education**
- #12: Medium of instruction in their high school education**

The respondents were asked to rate their reading and writing abilities in English and their native language in items 7 to 10 along the scale 1=Below average, 2=Average, 3=Good, 4=Very Good, and 5=Excellent. Frequency distributions and correlations were calculated between these variables and students' WST performance.

The first part of items 11 and 12 asked students to check either 1=Yes or 2=No as to whether they had received elementary or secondary school education in English. Frequency distributions were calculated for that item. The second part of items 11 and 12 was a string variable, which asked students who had given a “Yes” answer to the first part, to fill in from which grade their elementary or secondary school education had been in English. Frequency distributions and correlations were calculated between these variables and students’ WST performance.

2.7 Reading and Writing Strategies

Items 13-40 were analyzed using the same statistical procedures. Each item had two parts. The first part had the variable coded as 1=Yes and 2=No. The second part of the item asked those who had indicated “Yes” to elaborate their response by choosing either 1=Most of the time or 2=Some of the time. The respondents, in summary, were required to provide information with regard to their use of a strategy along the following three self perceptions:

- I used this strategy most of the time
- I used this strategy some of the time
- I did not use this strategy at any time

It is very important to note that the survey does not define the terms “most of the time” and “some of the time.” This presents problems since for one student 60% could mean “some of the time” while for another student 60% could mean “most of the time.” The reader should be aware that this particular problem with the survey may affect the validity of the results.

Frequency distributions and subsequent correlations were calculated between each item and WST scores.

2.7.1 Vocabulary Comprehension and Use (13-24)

This section made an attempt to obtain information about how often the LLD 99 students, in their opinion, used the following strategies with regard to vocabulary comprehension and use:

- #13: Looking up an unknown word in a dictionary (either English or bilingual) when reading in English**
- #14: Trying to guess the meaning of an unknown word based on the context when reading in English**
- #15: Asking the teacher for examples of how to use an unknown word when reading in English**
- #16: Looking up an unknown word in a dictionary only if it is important when reading in English**
- #17: Paying attention to how a word is used when reading in English**
- #18 Trying to remember a word's meaning by translating it into their native language when trying to learn a new word in English**
- #19 Trying to remember a word's meaning by remembering its context when trying to learn a new word in English**
- #20 Using a spell checker when writing term papers on the computer**
- #21 Trying to remember the spelling of a new word in English by writing it down one or more times**

- #22: Attempting to use a different word that has a somewhat similar meaning when they don't know the exact word while writing in English**
- #23: Consulting the thesaurus when they don't know the exact word while writing in English**
- #24: Giving up what they want to say when they don't know the exact word they want to use while writing in English**

2.7.2 Reading Comprehension (25-29 & 38)

This section made an attempt to obtain information about how often the LLD 99 students, in their opinion, used the following strategies with regard to reading comprehension (note: for the sake of analysis, item 38 is placed together with items 25-29 since all these questions have to do with reading comprehension).

- #25: Rereading a paragraph while reading in English when they do not understand it**
- #26: Distinguishing the relevant and important details from the irrelevant and unimportant details when reading in English**
- #27: Making connections or comparisons between their own experiences and those of the characters when reading an article, story, or news item in English**
- #28: Making predictions about what an essay will contain in the second half when starting to read an academic essay in English**
- #29: Summarizing information in order to remember it when reading a chapter in a textbook, journal article, or an academic essay in English**
- #38: Observing how essays are written by their classmates in order to improve their writing skills**

2.7.3 Grammatical Ability (30-32 & 37)

This section made an attempt to obtain information about how often the LLD 99 students, in their opinion, used the following strategies in order to improve their grammatical ability (note: for the sake of analysis, item 37 is placed together with items 30-32 since all these questions have to do with grammatical ability).

- #30: Paying attention to how sentences are grammatically constructed when reading in English**
- #31: Using a grammar checker when writing term papers on the computer**
- #32: Noticing any grammar mistakes when proofreading essays just completed**
- #37: Focusing on grammar (by enrolling in grammar classes or learning on their own) in order to improve their writing skills**

2.7.4 Improving Writing Ability (33-35 & 39-40)

This section made an attempt to obtain information about how often the LLD 99 students, in their opinion, used the following strategies with regard to improving writing ability (note: for the sake of analysis, items 39-40 are placed together with items 33-35 since all these questions have to do with improving writing ability).

- #33: Making an outline before starting to write an academic essay**
- #34: Deciding in advance what to write about in order to improve their writing skills**
- #35: Deciding in advance what content to put in which paragraph in order to improve their writing skills**
- #39: Showing their writing to others in order to improve their writing skills**
- #40: Revising what they have written more than once in order to improve their writing**

skills

2.7.5 Reading Habit (36)

This section made an attempt to obtain information about how often the LLD 99 students, in their opinion, used the following strategy with regard to reading habit:

#36: Reading a lot of ¹ books in order to improve their writing skills

2.8 Face Validity (42-47)

This section made an attempt to obtain information from LLD 99 students regarding the validity of the WST based on the following questions:

#42: How do they rate the WST as a writing test?

Scale used: Excellent, good, or bad.

#43: How do they rate the WST as a grammar test? ²

Scale used: Excellent, good, or bad.

#44: Was there sufficient time for them to do the essay part of the WST?

Scale used: Enough, not enough, or no opinion.

#45: Was there sufficient time for them to do the grammar part of the WST?

Scale used: Enough, not enough, or no opinion.

#46: Did the content of the essay prompt interest them?

Scale used: Yes, no, not sure.

#47: Was the content of the essay prompt too American-culture specific?

Scale used: Yes, no, not sure.

For a summary of the makeup of the questionnaire, please see Table 2.1 below.

The findings of the research are provided in Chapter 3. Appendix C contains the actual survey-questionnaire used to collect the data.

Table 2.1 Questionnaire Makeup

Type of Information	Total Number	Question Number
Background Information	12	1-12
Reading and Writing Strategies: Vocabulary Comprehension and Use	12	13-24
Reading and Writing Strategies: Reading Comprehension	6	25-29 & 38
Reading and Writing Strategies: Grammatical Ability	4	30-32 & 37
Reading and Writing Strategies: Improving Writing Skills	5	33-35 & 39-40
Reading Habit	1	36
The Writing Skills Test: Face Validity	6	42-47
Difficulty in Writing with Pen	1	48
Total	47*	

Notes

1. By *a lot of* in the context of reading books, the author meant more than five books a month. The author further acknowledges that it is impossible to ascertain what this term meant for each student answering the questionnaire, thus possibly affecting the validity of the results for this question.

2. The author acknowledges that the objective portion of the WST is not a grammar test, but rather the English subsection of the ACT as explained in chapter one. However, since item number 43 on the questionnaire includes 'grammar test' as part of the question, it was thought prudent to leave the wording as such.

* Please note that Item 41 asked students for the date when they were taking the WST after completing LLD 99.

Chapter III Findings

This section attempts to provide answers to the following research questions as outlined in Chapter I:

1. What is the academic profile of the students enrolled in LLD 99 classes during summer 2001?
2. What are the strategies most often used by LLD 99 students with regard to reading and writing?
3. What is the face validity of the WST in general?
4. Do the academic profile of the students, their use of certain reading and writing strategies, and their perceptions of the WST as a valid test have any statistically significant relationships with their test performance?

3.1 Findings on Background Information

3.1.1 Gender

Table 3.1 Gender

			Respondents' Performance on WST	
			Pass	%
Male	37	48.1	17	46.0
Female	40	51.9	8	20.0
Total	77	100.0		

$\chi^2 = 5.901$, $df=1$, $p < .05$

Out of the sample of 77 students, 37 were male and 40 were female. It is interesting to see that gender is almost split exactly right down the middle. Seventeen males (46%) and 8 females (20%) passed the WST. A chi-square test of independence was calculated comparing the WST pass rates of males versus females. A significant difference was found (chi-square = 5.901, df=1, $p < .05$). Males (46.0%) had performed significantly better than the females (20.0%).

3.1.2 Academic Level of the students

Table 3.2 Academic Level

	Frequency	%	Respondents' Performance on WST	
			Pass	%
Graduate	5	6.5	1	20.0
Undergraduate	72	93.5	24	33.3
Total	77	100.0		

$$\chi^2 = .379, df=1, p > .05$$

In terms of academic level, 72 of those in the sample population reported that they were undergraduates and only 5 were graduate students.¹ One graduate student and 24 undergraduates passed the WST. A chi-square test of independence was calculated comparing the WST pass rates based on academic level. No significant relationship was found (chi-square = .379, df=1, $p > .05$).

3.1.3 Major Field of Study

Table 3.3 Major

			Respondents' Performance on WST	
			Pass	%
Computer Science	12	15.6	5	41.7
Engineering	24	31.2	9	37.5
Business	21	27.3	3	14.3
Social Science	14	18.2	6	42.9
Art	6	7.8	2	33.3
Total	77	100.0		

In regards to major, respondents studied engineering, computer science, business, social sciences and art.

3.1.4 Native Language

Table 3.4 Native Language

			Respondents' Performance on WST	
	Frequency	%	Pass	%
Vietnamese	22	28.6	3	13.6
Chinese	21	27.3	7	33.3
English	7	9.1	4	57.1
Spanish	6	7.8	4	66.7
Japanese	4	5.2	1	25.0
Farsi	3	3.9	0	0.0
Tagalog	3	3.9	2	66.7
Indonesian	2	2.6	1	50.0
Burmese	2	2.6	0	0.0
Portuguese	1	1.3	1	100.0
Arabic	1	1.3	1	100.0
Korean	1	1.3	0	0.0
Gujarati	1	1.3	0	0.0
Igbo	1	1.3	0	0.0
Hindi	1	1.3	0	0.0
Urdu	1	1.3	1	100.0
Total	77	100.0	25	32.5

The most common first languages, by far, were Chinese and Vietnamese, followed by English, Spanish, Japanese, Farsi, Tagalog and Indonesian. Some languages which came up only once were Gujarati, Igbo, and Urdu. Five students who designated their first language as Chinese and two who stated that it was Cantonese passed the exam, while 3 of those who spoke Vietnamese did so. Others who passed the exam included 4 who spoke English, 4 who spoke Spanish, and 2 who spoke Tagalog.

3.1.5 Perceived Reading Ability in English and Native (First) Language

Table 3.5 Perceived Reading Ability in English

			Respondents' Performance on WST	
	Frequency	%	Pass	%
Below Average	8	10.4	2	25.0
Average	43	55.8	14	32.6
Good	16	20.8	4	25.0
Very Good	8	10.4	4	50.0
Excellent	2	2.6	1	50.0
Total	77	100.0		
N=77	Mean: 2.3896 (below average = 1, excellent = 5)	SD: .9055		

Table 3.6 Perceived Reading Ability in Native Language

			Respondents' Performance on WST	
	Frequency	%	Pass	%
Below Average	7	9.1	2	28.6
Average	10	13.0	5	50.0
Good	18	23.4	6	33.3
Very Good	14	18.2	3	21.4
Excellent	26	33.8	7	26.9
Missing	2	2.6	2	100.0
Total	77	100.0		
N=77	Mean: 3.5600 (below average = 1, excellent = 5)	SD: 1.3380		

Out of 77 students, 43 felt that their current reading ability in English was average. Sixteen students stated that their reading ability in English was good and 8 thought that it was very good. Eight students felt that their reading ability in English was

below average and 2 stated that it was excellent. The overall mean was 2.3896 (below average = 1, excellent = 5) with a standard deviation of .9055. Of those (8) who perceived their English ability to be below average, 2 passed the WST. Fourteen out of 43 who felt that they were average passed. Of the 2 students who perceived their reading ability in English as excellent, only 1 passed.

A chi-square test of independence was calculated comparing WST pass rates with perceived reading ability in English. No significant relationship was found (chi-square = 2.012, $df=4$, $p>.05$).

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of perceived reading ability in English (below average, average, good, very good, excellent). Results (chi-square = 68.260, $df=4$, $p<.05$) indicated that there was significant difference between the self-perceived levels.

Perceived reading ability in the native language was much more spread-out across the board, and not clumped around the average rating. The overall mean was 3.56 (below average = 1, excellent = 5) with a standard deviation of 1.3380. Twenty-six students felt that their reading ability in the native language was excellent, compared to only 2 in English. Fourteens felt that their ability was very good, compared to only 8 in English. It was interesting to observe that 2 students who perceived that their reading ability in the first language was below average also passed the WST.

A chi-square test of independence was calculated comparing WST pass rates with perceived reading ability in the native language. No significant relationship was found (chi-square = 2.566, $df=4$, $p>.05$).

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of perceived reading ability in the native language (below average, average, good, very good, excellent). Results (chi-square = 14.667, $df=4$, $p<.05$) indicated that there was significant difference between the self-perceived levels.

Figures 3.1 and 3.2 contain information on the respondents' self-assessments of their reading abilities in English and their native language.

Figure 3.1 Perceived Reading Ability in English

Figure 3.2 Perceived Reading Ability in Native Language

3.1.6 Perceived Writing Ability in English and Native (First) Language

Table 3.7 Perceived Writing Ability in English

	Frequency	%	Respondents' Performance on WST	
			Pass	%
Below Average	24	31.2	7	29.2
Average	36	46.8	13	36.1
Good	12	15.6	2	16.7
Very Good	4	5.2	2	50.0
Excellent	0	0.0	0	0.0
Missing	1	1.3	1	100.0
Total	77	100.0		
N=77	Mean: 3.5600 (below average = 1, excellent = 5)	SD: .8310		

Table 3.8 Perceived Writing Ability in Native Language

			Respondents' Performance on WST	
	Frequency	Percentage	Pass	%
Below Average	10	13.0	3	30.0
Average	16	20.8	4	25.0
Good	14	18.2	7	50.0
Very Good	24	31.2	6	25.0
Excellent	10	13.0	2	20.0
Missing	3	3.9	3	100.0
Total	77	100.0		
N=77	Mean: 3.5600 (below average = 1, excellent = 5)	SD: 1.2775		

Respondents' perceived writing ability² in English varied. Thirty-one point two percent felt that their writing ability was below average. Forty-six point eight percent felt that they were able to write only at an average level in English. Only 5.2% perceived that their ability was very good. No one felt that his or her writing ability in English was excellent. The overall mean was 1.9474 3896 (below average = 1, excellent = 5) with a standard deviation of .8310. It was interesting that 7 (29.2%) of those who felt that their writing ability in English was below average passed the WST.

A chi-square test of independence was calculated comparing WST pass rates with perceived writing ability in English. No significant relationship was found (chi-square = 2.270, df=3, $p>.05$).

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of perceived writing ability in English (below average,

average, good, very good, excellent). Results (chi-square = 30.947, $df=3$, $p<.05$) indicated that there was significant difference between the self-perceived levels.

A contrast can be seen in how individuals viewed their writing ability in their native language. Overall, native language writing ability was seen as higher than one's English writing ability. Thirteen percent thought that they wrote at an excellent level in their native language, while 31.2% felt that this ability was very good. Eighteen point two percent felt that they wrote at a good level in the native language. The overall mean was 3.1081 (below average = 1, excellent = 5) with a standard deviation of 1.2775. Of the 10 students who perceived their writing ability in their native language as below average, only 3 passed the WST. Likewise, of the 10 students who perceived their writing ability in their native language as excellent, only 3 passed the WST.

A chi-square test of independence was calculated comparing WST pass rates with perceived writing ability in the native language. No significant relationship was found (chi-square = 3.635, $df=4$, $p>.05$).

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of perceived writing ability in the native language (below average, average, good, very good, excellent). Results (chi-square = 8.973, $df=4$, $p>.05$) indicated that there wasn't any significant difference between the self-perceived levels.

Figures 3.3 and 3.4 contain information on respondents' perceived abilities in English and native language.

Figure 3.3 Perceived Writing Ability in English

Figure 3.4 Perceived Writing Ability in Native Language

3.1.7 Medium of Instruction in Elementary and High School Education

Table 3.9 English as Medium of Instruction in Elementary School

			Respondents' Performance on WST	
	Frequency	%	Pass	%
Yes	29	37.7	14	48.3
No	47	61.0	10	21.3
Missing	1	1.3		
Total	77	100.0		

Table 3.10 English as Medium of Instruction in High School

			Respondents' Performance on WST	
	Frequency	%	Pass	%
Yes	49	63.6	21	42.9
No	27	35.1	3	11.1
Missing	1	1.3		
Total	77	100.0		

The data indicated that the majority had English as the medium of instruction in their high school, and not in the elementary years. Twenty-nine out of 77 respondents indicated that they had English as the medium of instruction in their elementary school education. Fourteen of them passed the WST. Forty-nine respondents had English as the medium of instruction in their high school education.

Since 29 students had elementary school education in English, it can be surmised that these 29 students had both elementary and secondary school education in English medium of instruction. The remaining 20 students had only their secondary school education in English medium of instruction.

A chi-square test of independence was calculated comparing WST pass rates with elementary school education in English. A significant relationship was found (chi-square = 6.051, $df=1$, $p<.05$).

A chi-square test of independence was calculated comparing WST pass rates with high school education in English. A significant relationship was found (chi-square = 8.120, $df=1$, $p<.05$).

3.1.8 Summary of Findings on Background Information

- Male students did better than the female students on the WST (46.0% vs. 20.0%) and chi-square analysis indicated that the difference was statistically significant.
- Undergraduate students did better than the graduate students (33.3% vs. 20.0%) on the WST, but chi square analysis indicated that the difference between the graduate and undergraduate performance on the WST was not statistically significant.
- Though students enrolled in LLD 99 classes were from all majors, engineering and business major students were in higher proportion (58.5% together) compared to other majors (28.6%).
- 22 out of 77 students (28.6%) had Vietnamese as their native language. 21 respondents (27.3%) had Chinese as their native language. Other languages with 3 or more speakers included English (7), Spanish (6), Japanese (4), Tagalog (3), and Farsi (3).
- Students may have perceived that their reading ability in their native language (Mean 3.56, SD 1.338) was slightly better than their reading ability in English (Mean 2.3896, SD .9055).

- There was no significant relationship between one's self-perceived reading ability either in English or in the L1 and his/her pass score on the WST.
- 26 students perceived their reading ability in the native language to be excellent.
- 43 students perceived their reading ability in English to be average.
- Students may have perceived that their writing ability in their native language (Mean 3.1081, SD 1.2775) was slightly better than their writing ability in English (Mean 1.9474, SD .8310).
- 60 out of 77 students perceived that their writing ability in English was average or less than average compared to only 26 students with regard to their writing ability in the native language.
- 36 students perceived their writing ability in English to be average.
- Chi-square analysis showed that there were differences between the self-perceived levels with regard to reading both in the native language and in English. The range (Standard Deviation) seemed to be far wider in the native language than in English.
- 29 students had elementary education in English.
- 49 students received high school education in English. Of these 49 students, it is possible that 20 students did not receive their elementary school education in English.
- A chi-square test of independence confirmed that receiving elementary school education in English and passing the WST were interrelated events.
- A chi-square test of independence confirmed that receiving high school education in English and passing the WST were interrelated events.

3.2 Findings on Reading and Writing Strategies

3.2.1 Vocabulary Comprehension and Use

Students were asked to give their perception of how frequently they used the 12 strategies of vocabulary comprehension and use. Findings with regard to the LLD 99 students' perceived use of strategies on vocabulary and comprehension and use are given in Table 3.11.

Table 3.11 Reading and Writing Strategies: Vocabulary Comprehension & Use

Sample Population Perceptions with regard to the Frequency of Use (Never, Some of the Time, and Most of the Time) and WST Pass Rate							Chi-Square Values between Dependent Variable (WST Pass Rate) and Independent Variables (Strategies)				Within Group Differences	
Strategy	Never Used		Some of the Time		Most of the Time		Pearson Chi Square	df	Significance	P<0.05	Chi-Square	P<0.05 df=2
	#	Pass %	#	Pass %	#	Pass %						
Looking up unknown word	7	2 28.6	53	16 30.2	16	6 37.5	.336	2	.845	No	46.921	Yes
Guessing word's meaning	2	0 0.0	28	8 28.6	45	15 33.3	1.093	2	.579	No	37.520	Yes
Asking teacher for examples	54	17 31.5	19	5 26.3	4	3 75.0	3.652	2	.161	No	51.299	Yes
Looking up important word	20	5 25.0	30	9 30.0	25	10 40.0	1.241	2	.538	No	2.000	No
Paying attention to word's use	18	5 27.7	26	12 46.2	30	7 23.3	3.545	2	.170	No	3.027	No
Remembering word's meaning by translating into NL	24	12 50.0	13	3 23.1	38	8 21.1	6.223	2	.045	Yes	12.560	Yes
Remembering word's meaning by context	22	6 27.3	28	9 32.1	25	8 32.0	.169	2	.919	No	.720	No
Using spell checker	3	0 0.0	11	3 27.3	60	20 33.3	1.570	2	.456	No	77.216	Yes
Remembering spelling by writing word down	25	11 44.0	20	8 40.0	31	5 16.1	5.866	2	.053	No	2.395	No
Using different word with similar meaning	8	4 50.0	19	3 15.8	47	17 36.2	3.828	2	.147	No	32.784	Yes
Consulting thesaurus	25	7 28.0	29	9 31.0	21	9 42.9	1.246	2	.536	No	1.280	No
Giving up what one wanted to say	45	16 35.5	25	7 28.0	7	2 28.6	.472	2	.790	No	28.156	Yes
Total	253	85 33.6	301	92 30.6	349	110 31.5						

There were 12 strategies in the category of vocabulary comprehension and use. Of these 12 strategies, guessing the meaning of an unknown word was perceived to be the most widely-used vocabulary comprehension and use strategy. Forty-five (58.4%) students reported using the strategy most of the time, and 28 (36.4%) students perceived using it some of the time, with 15 (33.3%) students and 8 (28.6%) students passing the WST, respectively. Two (2.6%) students stated that they had never used the strategy. Neither passed the test.

The strategy of using the spell checker was perceived to be the second most widely-used strategy. Sixty (77.9%) out of 77 students used the spell checker most of the time, whereas 11 (14.3%) students used it some of the time. Out of those who used the spell checker most of the time, 20 (33.3%) students passed the WST, while 3 (27.3%) out of those who used it some of the time passed. Three (3.9%) students stated that they had never used the strategy. None of them passed the test.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the use of the spell checker (never, some of the time, most of the time). Results (chi-square = 77.216, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

The strategy of looking up an unknown word in a dictionary was perceived to be the third most widely-used strategy by the sample population. Out of 77 students, 16 (20.8%) students used it most of the time, while 53 (68.8%) used this strategy some of the time, and 7 (9.1%) never used it. Out of those who used the strategy most of the time,

6 (37.5%) students passed the WST, while 16 (30.2%) of those who used it some of the time passed, and 2 (28.6%) who never used it also passed.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the use of the strategy of looking up an unknown word (never, some of the time, most of the time). Results (chi-square = .46.921, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

The strategy of using a different word with a similar meaning when the word wanted is not available was perceived to be the fourth most widely-used strategy in this sample. Forty-seven (61.0%) students used this strategy most of the time; of them, 17 (36.2%) passed the WST. Nineteen (24.7%) students used the strategy some of the time. Of them, 3 students (15.8%) passed. Eight (10.4%) students claimed that they never used it. Out of these 8, 4 (50.0%) students passed the WST.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the strategy of using a different word with a similar meaning (never, some of the time, most of the time). Results (chi-square = 32.784, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

The strategy of paying attention to a word's use was perceived to be the fifth most widely-used strategy. Thirty (39.0%) students stated that they used the strategy most of the time, 26 (33.8%) used it some of the time, and 18 (23.4%) none of the time. Out of those who used it most of the time, 7 (23.3%) passed the WST, while 12 (46.2%) who used it some of the time passed, and 5 (27.7%) who never used it passed.

The strategy of looking up the meaning of an unknown word when it was thought to be important was perceived to be the sixth most widely-used strategy by this sample population. Twenty-five (32.5%) students used this strategy most of the time, while 30 (39.0%) used it some of the time, and 20 (26.0%) never used the strategy. Out of these three groups, 10 (40.0%), 9 (30.0%), and 5 (25.0%) passed the WST, respectively.

The strategy of remembering a word's meaning by the context in which it occurs was perceived to be the seventh most widely-used strategy. Twenty-five (32.5%) students used it most of the time with 8 (32.0%) passing the WST. Twenty-eight (36.4%) students used it some of the time with 9 (32.1%) passing the WST. Twenty-two (28.6%) students never used this strategy with 6 (27.3%) passing the WST.

The strategy of remembering a word's meaning by translating it into the native language was perceived to be the eighth most widely-used strategy in this group. Thirty-eight (49.4%) students used this strategy most of the time, with 8 (21.1%) passing the WST. Thirteen (16.9%) students used the strategy some of the time. Of them, 3 (23.1%) passed the exam, and 24 (31.2%) students never used the strategy. Out of these 24 students, 12 (50.0%) passed the WST.

A chi-square test of independence was calculated comparing the WST pass rates with use of the strategy of remembering a word's meaning by translating it into one's native language. A significant relationship was found (chi-square = 6.223, df=2, $p < .05$).

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the strategy of remembering a word's meaning by translating it into the native language (never, some of the time, most of the time). Results

(chi-square = 12.560, df=2, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

The strategy of remembering the spelling of a word by writing it down more than once was the ninth most widely-used strategy. Thirty-one (40.3%) students used the strategy most of the time, 5 (16.1%) of whom passed the WST. Twenty (26.0%) students used this strategy some of the time, 8 (40.0%) of whom passed the exam. Twenty-five (32.5%) students never used this strategy, with 11 (44.0%) of them passing the WST.

With regard to the use of the strategy of consulting a thesaurus, out of 77 students, 21 (27.3%) students stated that they used the strategy most of the time, with 9 (42.9%) passing the WST. Twenty-nine (37.7%) used it some of the time, with 9 (31.0%) passing the WST, while 25 (32.5%) students stated that they never used the strategy; of these, 7 (28.0%) passed the exam.

With regard to the use of avoidance strategy or giving up what one wanted to say, 7 (9.1%) students claimed that they used this strategy most of the time, while 25 (32.5%) used it some of the time. Of those who used it most of the time, 2 (28.6%) passed the WST, while 7 (28.0%) who used it some of the time passed. Forty-five (58.4%) students never used this strategy. Of them, 16 (35.5%) passed the WST.

The least-used strategy in this category, in terms of the sample population's self perception, was that of asking the teacher for examples of how to use a word. Four (5.2%) students used the strategy most of the time, while 19 (24.7%) used it some of the time. Fifty-four (70.1%) students never used this strategy at all. Of these three groups, 3 (75.0%), 5 (26.3%), and 17 (31.5%) passed the WST, respectively.

3.2.1.1 Summary of Findings on Vocabulary Comprehension & Use

As per the survey, findings are as follows:

- **Guessing the meaning of an unknown word while reading in English was the most widely-used strategy by students in this category of strategies. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.**
- **Using the spell checker was the second most widely-used strategy in this group. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.**
- **The third most widely-used strategy was that of looking up an unknown word when reading in English. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.**
- **The fourth most widely-used strategy in this group was that of using a different word with a similar meaning when the exact word wanted is not known. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.**
- **Students were not as apt to use the strategy of asking the teacher for examples of how to use a word. Out of 77 students, 54 reported never using this strategy, while 19 used it some of the time, and only 4 used it most of the time. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.**

- A chi-square test of independence confirmed that the strategy of translating an unknown word in English into the native language and passing the WST were interrelated events.

3.2.2 Reading Comprehension and Use

Students were asked to give their perception of how frequently they used certain strategies of reading comprehension. Findings with regard to the LLD 99 students' perceived use of strategies on reading comprehension are given in Table 3.12.

Table 3.12 Reading and Writing Strategies: Reading Comprehension

Sample Population Perceptions with regard to the Frequency of Use (Never, Some of the Time, and Most of the Time) and WST Pass Rate							Chi-Square Values between Dependent Variable (WST Pass Rate) and Independent Variables (Strategies)			Within Group Differences		
Strategy	Never Used		Some of the Time		Most of the Time		Pearson Chi Square	Df	Significance	P<0.05	Chi-Square	P<0.05 df=2
	#	Pass %	#	Pass %	#	Pass %						
Rereading a paragraph	2	1 50.0	12	4 33.3	61	19 31.0	.328	2	.849	No	79.760	Yes
Distinguishing relevant and important details	14	1 7.1	25	9 36.0	34	13 38.2	4.798	2	.091	No	8.247	Yes
Making comparisons between self and characters in reading	24	7 29.2	28	10 35.8	25	8 32.0	.256	2	.880	No	.338	No
Making predictions about 2 nd half of essay	28	10 35.7	30	1 33.3	19	5 26.0	.473	2	.789	No	2.675	No
Summarizing information in reading	12	3 25.0	38	13 34.2	25	7 28.0	.489	2	.783	No	13.520	Yes
Observing how classmates write essays	20	10 50.0	31	13 41.9	24	2 8.3	10.282	2	.006	Yes	2.480	No
Total	100	32 32.0	164	50 30.5	188	54 28.7						

There were 6 strategies listed in the category of reading comprehension. Of these 6 strategies, rereading a paragraph when the reader can't understand it was perceived to be the most widely-used reading comprehension strategy. Sixty-one (79.2%) students used this strategy most of the time, 12 (15.6%) used it some of the time, and 2 (2.6%) never used it. Of these three groups, 19 (31.0%), 4(33.3%), and 1 (50.0%) passed the WST, respectively.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the strategy of rereading a paragraph (never, some of the time, most of the time). Results (chi-square = 79.760, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

The strategy of summarizing information when reading was perceived to be the second most widely-used strategy. Twenty-five (49.4%) students used this strategy most of the time. Of them, 7 (28.0%) passed the WST. Thirty-eight (49.4%) students used it some of the time. Of them, 13 (34.2%) passed the exam. Of the 12 (15.6%) students who never used the strategy, 3 (25.0%) passed the WST.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the strategy of summarizing information when reading (never, some of the time, most of the time). Results (chi-square = 13.520, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

The strategy of distinguishing relevant and important details from irrelevant and unimportant details was perceived to be the third most widely-used strategy in this category. Thirty-four (44.2%) students used the strategy most of the time, with 13

(38.2%) passing the WST. Twenty-five (32.5%) used the strategy some of the time. Of them, 9 (36.0%) passed the WST. Fourteen (18.2%) never used the strategy. Of them, 1 (7.1%) passed.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the strategy of distinguishing relevant and important details from the irrelevant and unimportant ones (never, some of the time, most of the time). Results (chi-square = 8.247, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

With regard to the use of observing how classmates write essays, out of 77 students, 24 (31.2%) students claimed that they used the strategy most of the time, 31 (40.3%) used it some of the time, and 20 (26.0%) never used it. Two (8.3%), 13 (41.9%), and 10 (50.0%) students passed the WST, respectively.

A chi-square test of independence was calculated comparing the WST pass rates with use of the strategy of observing how classmates write essays. A significant relationship was found (chi-square = 10.282, $df=2$, $p<.05$).

With regard to the use of making comparisons between one's self and the characters in the reading materials, 25 (32.5%) students claimed that they used it most of the time, while 28 (36.4%) used it some of the time. Of them, 10 (35.8%) passed the WST. 8 (32.0%) students who used the strategy most of the time passed. Of those 24 (31.2%) students who never used the strategy, 7 (29.2%) passed the WST.

The least-used strategy in this group, in terms of the sample population's self perception, was that of making predictions about what happened in the 2nd half of an

academic essay. Out of 77 students, 19(24.7%) used this strategy most of the time, with 5 (26.0%) passing the WST. Thirty (39.0%) used the strategy some of the time, with 1 (33.3%) passing the exam. Twenty-eight (36.4%) students never used this strategy at all. Of these, 10 (35.7%) passed the WST.

3.2.2.2 Summary of Findings on Reading Comprehension

As per the survey, findings are as follows:

- The most widely-used strategy in this category was that of rereading a paragraph when one doesn't understand it. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- The second most widely-used strategy of this category was that of summarizing information when reading in English. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- The third most widely-used strategy in this group was that of distinguishing relevant and important details from irrelevant and unimportant details. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- A chi-square test of independence confirmed that the strategy of observing how classmates write essays and passing the WST were interrelated events.

3.2.3 Grammatical Ability

Students were asked to give their perception of how frequently they used certain strategies related to improving one's grammatical ability. Findings with regard to the students' perceived use of strategies on grammatical ability are given in Table 3.13.

Table 3.13 Reading and Writing Strategies: Grammatical Ability

Sample Population Perceptions with regard to the Frequency of Use (Never, Some of the Time, and Most of the Time) and WST Pass Rate							Chi-Square Values between Dependent Variable (WST Pass Rate) and Independent Variables (Strategies)				Within Group Differences	
Strategy	Never Used		Some of the time		Most of the Time		Pearson Chi Square	Df	Significance	P<0.05	Chi-Square	P<0.05 df=2
	#	Pass %	#	Pass %	#	Pass %						
Paying attention to grammatical constructions	26	9 34.6	30	11 36.6	21	5 23.8	1.014	2	.602	No	1.584	No
Using grammar checker	16	6 37.5	11	3 27.3	47	14 29.8	.419	2	.811	No	30.838	Yes
Noticing grammar mistakes	6	1 16.6	38	14 36.8	31	9 29.0	1.183	2	.553	No	22.640	Yes
Focusing on learning grammar	17	11 64.7	36	10 27.7	22	3 13.6	12.061	2	.002	Yes	7.760	Yes
Total	65	27 41.5	115	38 33.1	188	54 28.7						

There were 4 strategies in the category of grammatical ability. Of these 4 strategies, noticing grammar mistakes when proof-reading essays was perceived to be the most widely-used grammatical ability strategy. Out of 77 students, 31 (40.3%) used this strategy most of the time. Of them, 9 (29.0%) passed the WST. Thirty-eight (49.4%) used the strategy some of the time. Of them, 14 (36.8%) passed the WST. Six (7.8%) never used the strategy, one of whom (16.6%) passed the WST.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the use of the strategy of noticing grammar mistakes (never, some of the time, most of the time). Results (chi-square = 22.640, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

The strategy of using the grammar checker was perceived to be the second most widely-used strategy in this group. Out of 77 students, 47 (61.0%) stated that they used the strategy most of the time. Of them, 14 (36.6%) passed the WST. Eleven (14.3%) used it some of the time. Of them, 3 (27.3%) passed the WST. Sixteen (20.8%) students never used the strategy. Of them, only 6 (37.5%) passed the WST.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the use of the grammar checker (never, some of the time, most of the time). Results (chi-square = 30.838, $df=2$, $p>.05$) showed that there was significant difference between the indicated levels of strategy use.

With regard to the strategy of focusing on learning grammar to improve one's writing skills, 22 (28.6%) students claimed using this strategy most of the time, while 36

(46.8%) used it some of the time. Seventeen (22.1%) never used the strategy. Of these students, 3 (13.6%), 10 (27.7%), and 11 (64.7%) passed the WST, respectively.

A chi-square test of independence was calculated comparing the WST pass rates with use of the strategy of focusing on learning grammar. A significant relationship was found (chi-square = 12.061, df=2, $p < .05$).

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of the strategy of focusing on learning grammar (never, some of the time, most of the time). Results (chi-square = 7.760, df=2, $p < .05$) showed that there was significant difference between the indicated levels of strategy use.

The least-used strategy in this category, according to student self-perception, was that of paying attention to how sentences are grammatically constructed. Twenty-one (27.3%) students used the strategy most of the time, while 30 (39.0%) used it some of the time. 26 (33.8%) never used this strategy. Out of these students, 5 (23.8%), 11 (36.6%), and 9 (34.6%), respectively, passed the WST.

3.2.3.3 Summary of Findings on Strategies Related to Improving One's Grammatical Ability

As per the survey, findings are as follows:

- The most widely-used strategy in this category was that of noticing grammar mistakes while proofreading. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- The second most widely-used strategy in this category was that of using the grammar checker. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.

- The third most widely-used strategy was that of focusing on learning grammar to improve one's writing skills. A significant relationship was found (chi-square = 12.061, $df=2$, $p<.05$) between the use of this strategy and passing the WST.

3.2.4 Strategies Related to Improving One's Writing Skills

Students were asked to give their perception of how frequently they used certain strategies related to improving one's writing skills. Findings with regard to the LLD 99 students' perceived use of strategies on improving writing skills are given in Table 3.14.

Table 3.14 Reading and Writing Strategies: Improving Writing Skills

Sample Populations Perceptions with regard to the Frequency of Use (Never, Some of the Time, and Most of the Time) and WST Pass Rate							Chi-Square Values between Dependent Variable (WST Pass Rate) and Independent Variables (Strategies)				Within Group Differences	
Strategy	Never Used		Some of the Time		Most of the Time		Pearson Chi Square	Df	Significance	P<0.05	Chi- Square	P<0.05 df=2
	#	%	#	%	#	%						
Making an outline	20	8 40.0	30	8 26.6	27	8 29.6	.987	2	.610	No	2.052	No
Deciding in advance what to write about	8	4 50.0	28	11 39.3	40	10 25.0	2.708	2	.258	No	20.632	Yes
Deciding in advance what content to put where	17	5 29.4	31	13 41.9	28	7 25.0	2.032	2	.362	No	4.289	No
Showing writing to another person	26	7 26.9	31	9 29.0	19	8 42.1	1.328	2	.515	No	2.868	No
Revising more than once	9	1 11.1	43	15 34.9	23	8 34.8	2.051	2	.359	No	23.360	Yes
Total	80	25 31.3	163	56 34.4	137	41 29.9						

There were 5 strategies in the category of improving writing skills. Deciding in advance what to write about was perceived to be the most widely-used strategy in this category. Out of 77 students, 40 (51.9%) used this strategy most of the time. Twenty-eight (36.4%) used it some of the time, and 8 (10.4%) never used the strategy. Ten (25.0%) of those who used it most of the time passed the WST, while 11 (39.3%) of those who used it some of the time passed, and 4 (50.0%) who never used the strategy passed the WST.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of use of the strategy of deciding in advance what to write about (never, some of the time, most of the time). Results (chi-square = 20.632, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

The strategy of revising one's writing more than once was perceived to be the second most widely-used strategy in this category. Out of 77 students, 23 (29.9%) used the strategy most of the time. Of them, 8 (34.8%) passed the WST. Forty-three (55.8%) students used this strategy some of the time. Of them, 15 (34.9%) passed the WST. Of the 9 (11.7%) students who never used the strategy, 1 (11.1%) passed the WST.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of use of the strategy of revising more than once (never, some of the time, most of the time). Results (chi-square = 23.360, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

With regard to the use of the strategy of deciding in advance what content to put in which paragraph, 28 (36.4%) students claimed that they used the strategy most of the time, with 7 (25.0%) of those passing the WST. Thirty-one (40.3%) students used the strategy some of the time. Of them, 13 (41.9%) passed the WST. Seventeen (22.1%) students never used the strategy at all. Of them, 5 (29.4%) passed the WST.

With regard to the use of the strategy of making an outline, out of 77 students, 27 (35.1%) claimed to use this strategy most of the time. Of them, 8 (29.6%) passed the WST. Thirty (39.0%) used the strategy some of the time. Of them, 8 (26.6%) passed the WST. Twenty (26.0%) never used the strategy. Of them, 8 (40.0%) passed the exam.

The least-used strategy in this category, according to student self-perception, was that of showing one's writing to another person. Nineteen (24.7%) used it most of the time. Of them, 8 (42.1%) passed the WST. Thirty-one (40.3%) students used this strategy some of the time. Of them, 9 (29.0%) passed the WST. 26 (33.8%) never used this strategy. Of them, 7 (26.9%) students passed the WST.

3.2.4.4 Summary of Findings on Strategies Related to Improving One's Writing Skills

As per the survey, findings are as follows:

- The most frequently-used strategy in this category was that of deciding in advance what to write about. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- The second most-used strategy in this category was that of revising more than once. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.

- The least-used strategy in this category was that of showing one's writing to another person.

3.2.5 Reading Habit

Students were asked to give their perception as to whether they read a lot in order to improve their writing skill. Findings on this perception are given in Table 3.15.

Table 3.15 Reading and Writing Strategies: Reading Habit

Sample Population Perceptions with regard to the Frequency of Use (Never, Some of the Time, and Most of the Time) and WST Pass Rate							Chi-Square Values between Dependent Variable (WST Pass Rate) and Independent Variables (Strategies)				Within Group Differences	
Strategy	Never Used		Some of the Time		Most of the Time		Pearson Chi Square	Df	Significance	P<0.05	Chi-Square	P<0.05 df=2
	#	Pass %	#	Pass %	#	Pass %						
Reading in order to improve writing skills	37	12 32.4	31	11 35.5	7	1 14.3	1.186	2	.553	No	20.160	Yes
Total	37	12 32.4	31	11 35.5	7	1 14.3						

According to student self-perception, 7 (9.1%) students used this strategy most of the time. Of them, 1 (14.3%) passed the WST. Out of the 31 (40.3%) students who used it some of the time, 11 (35.5%) passed the WST. Thirty-seven (48.1%) students never used this strategy, and out of those, 12 (32.4%) passed the WST.

A chi-square goodness of fit test was calculated comparing the frequency of occurrence of different levels of use of the strategy of reading in order to improve one's writing skills (never, some of the time, most of the time). Results (chi-square = 20.160, $df=2$, $p<.05$) showed that there was significant difference between the indicated levels of strategy use.

3.4 Writing Skills Test

3.4.1 Face Validity

Table 3.16 Face Validity of WST as a Writing Test

			Respondents' Performance on WST	
			Pass	%
Excellent	2	2.6	1	50.0
Good	56	72.7	19	33.9
Poor	18	23.4	5	27.7
Missing	1	1.3		
Total	77	100.0		
N=77	Mean: 2.2105 (excellent = 1, = poor = 3)	S.D: .4709		

Fifty-six out of 77 students (72.7%) felt that the WST had good face validity as a writing test, compared to 18 students (23.4%) who felt that its face validity was poor. Only 2 students (2.6%) felt that the face validity of the WST was excellent.

A chi-square goodness of fit test was calculated comparing student opinions of the face validity of the WST as a writing test (excellent, good, poor). Results (chi-square =

60.737, $df=2$, $p<.05$) showed that there was significant difference between student opinions regarding the face validity of the WST as a writing test. Please see Figure 3.5 below.

Figure 3.5 Face Validity of WST as a Writing Test

Table 3.17 Face Validity of WST as a Grammar Test

			Respondents' Performance on WST	
			Pass	%
Excellent	2	2.6	0	0.0
Good	45	58.4	14	31.1
Poor	29	37.7	11	37.9
Missing	1	1.3		
Total	77	100.0		
N=77	Mean: 2.3553 (excellent = 1, = poor = 3)	S.D: .5343		

Students felt less highly about the face validity of the WST as a grammar test,³ although 45 students (58.4%) rated it good, compared to 29 students (37.7%) who rated it poor. Two students (2.6%) felt that it had excellent face validity.

A chi-square goodness of fit test was calculated comparing student opinions of the face validity of the WST as a grammar test (excellent, good, poor). Results (chi-square = 37.289, df=2, $p < .05$) showed that there was significant difference between student opinions regarding the face validity of the WST as a grammar test. Please see Figure 3.6 below.

Figure 3.6 Face Validity of WST as a Grammar Test

Table 3.18 Sufficiency of Time for Essay Part of WST

			Respondents' Performance on WST	
	Frequency	Percentage	Pass	%
Yes	12	15.6	7	58.3
No	56	72.7	17	30.4
Not Sure	8	10.4	1	12.5
Missing	1	1.3		
Total	77	100.0		
N=77	Mean: 2.3896 (Yes = 1, Not sure = 3)	S.D: .5137		

Table 3.19 Sufficiency of Time for Grammar (Multiple-Choice) Part of WST

			Respondents' Performance on WST	
	Frequency	Percentage	Pass	%
Yes	5	6.5	1	8.3
No	69	89.6	23	41.1
Not Sure	1	1.3	0	0.0
Missing	2	2.6		
Total	77	100.0		
N=77	Mean: 1.9467 (Yes = 1, = Not sure = 3)	S.D: .2796		

Despite the fact that more than half the sample felt that the WST's writing and grammar ⁴ portions had good face validity, students expressed dissatisfaction with the amount of time allotted for both parts of the test. In response to the question regarding whether there was enough time to do the essay portion of the WST, 56 students (72.7%) felt that there was not, while only 12 (15.6%) felt that there was, and 8 (10.4%) were not sure.

A chi-square goodness of fit test was calculated comparing student opinions of the WST regarding the allocation of time for the written portion of the WST (yes, no, not sure). Results (chi-square = 56.000, df=2, $p<.05$) showed that there was significant difference between student opinions on this issue.

In regards to the grammar ⁵ (multiple-choice) part of the WST, students were even more unhappy with the time allotment. Sixty-nine students (89.6%) felt that there was not enough time, compared with 5 (6.5%) who felt that there was, and 1 student (1.3%) who was not sure.

A chi-square goodness of fit test was calculated comparing student opinions of the WST regarding the allocation of time for the grammar portion of the WST (yes, no, not sure). Results (chi-square = 116.480, df=2, $p<.05$) showed that there was significant difference between student opinions on this issue.

Table 3.20 Essay Prompt Interesting

			Respondents' Performance on WST	
	Frequency	Percentage	Pass	%
Yes	24	31.2	6	25.0
No	36	46.8	13	36.1
Not Sure	15	19.5	5	33.3
Missing	2	2.6		
Total	77	100.0		
N=77	Mean: 1.8800 (Yes = 1, = Not sure = 3)	S.D: .7158		

Table 3.21 Essay Prompt Too American-Culture Specific

			Respondents' Performance on WST	
	Frequency	Percentage	Pass	%
Yes	21	27.3	7	33.3
No	27	35.1	10	37.0
Not Sure	27	35.1	7	25.9
Missing	2	2.6		
Total	77	100.0		
N=77	Mean: 2.0800 (Yes = 1, = Not sure = 3)	S.D: .8014		

The researcher was unable to obtain the actual essay prompt given on the July 14th exam due to concerns of the WST coordinator that this might compromise the security of the limited number of essay prompts available for use on future WST exams. However, the coordinator did kindly provide the author with a prompt that was as similar to the original as possible without giving away the identity of the original prompt. This similar prompt was:

Many times travel or a particular journey can affect one's behavior or the way one thinks about himself or herself. Select a journey you have made in your life, and explain how that experience changed your understanding of yourself or some aspect of the world around you. In your essay, you should

- describe the journey;
- describe/explain the understanding or insight the experience produced;
- explain how the trip or journey affected your new understanding or behavior.

In terms of the written portion of the WST, 36 students (46.8%) did not find the essay prompt interesting, compared to only 24 (31.2%) who did. Fifteen students (19.5%) were not sure and 2 (2.6%) declined to state.

A chi-square goodness of fit test was calculated comparing student opinions of the WST regarding the essay prompt on the WST being interesting (yes, no, not sure).

Results (chi-square = 8.880, df=2, $p < .05$) showed that there was significant difference between student opinions on this issue.

Twenty-one (27.3%) students of the sample population felt that this same essay prompt was too American-culture specific, while 27 (35.1%) did not feel this way, and another 27 (35.1%) were not sure. Two students (2.6%) failed to answer the question.

3.3.2 Summary of Findings on Face Validity

- The majority of students (72.2%) felt that the WST had good face validity as a writing test (Mean 2.2105, SD .4709). Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- 58.4% of students felt that the WST had good face validity as a grammar test.⁶ Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- Students were generally dissatisfied with the amount of time allotted for completing the essay portion of the WST. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- Students were even more dissatisfied with the amount of time allotted for completing the grammar (multiple-choice) portion of the WST. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.
- Only 31.2% of students found the essay prompt on the WST interesting, while 46.8% did not. Chi-square analysis indicated that the difference between student opinions on this matter was statistically significant.

- While 27.3% of the sample population felt that the essay prompt was too American-culture specific, 35.1% felt that it was not, and an equal amount (35.1%) was not sure (Mean 2.0800, SD .8014). Chi-square analysis indicated that the difference between student opinions on this matter was also statistically significant.

Notes

1. According to the director of Testing and Evaluation at SJSU, the proportion of undergraduates to graduates in the general population of students who take the WST is quite similar to that of the sample.
2. The author acknowledges that for some students, writing ability may equal grammatical competence.
3. – 6. Again, the author acknowledges that the objective portion of the WST is not a grammar test, but rather the English subsection of the ACT as explained in Chapter One.

Chapter IV

Interpretation and Discussion

The previous chapter has presented numerous findings about the students in the sample: their current self-perceived reading ability in English, their current self-perceived writing ability in English, how much education they received in English medium of instruction in elementary and high school, what kinds of reading and writing strategies they perceive themselves to use, which of these factors may be associated with passing the WST, and what the students' perceptions with regard to the validity of the WST are.

What the previous chapter has not done, however, is to remind the reader why the study was done in the first place. The author understands the anxiety which exams of all types can bring. Being a "bad test taker" seemed to have been the author's lot throughout her academic career; failing a test was not uncommon for her, and she always lived with the fear that she would not get into the university of her choice due to low SAT and/or GRE scores. Thus, the anguish which students in the sample, as well as those in all LLD 98 and 99 classes, must go through with each subsequent taking and possible failing of the WST, cannot be understated. This research study's purpose is to shed some light on the WST and the basic reading and writing strategies which students, based on self-report, employ on the exam. The study's biggest purpose, however, is that the results of the study may be used to help those students caught within the WST's proverbial grasp.

This chapter attempts to interpret and discuss what the author views as the most salient findings in this research study. The study indicates that students prefer some strategies over others, and that only a handful of strategies may be associated with passing of the WST.

Before going over the predominant themes inherent in this study, it is important to recapitulate the research and sub-questions, since it is from these that the discussion tends to flow.

Research Questions:

1. What is the academic profile of the students enrolled in LLD 99 classes during summer 2001?
2. What are the strategies most often used by LLD 99 students with regard to reading and writing?
3. What is the face validity of the WST in general?
4. Do the academic profile of the students, their use of certain reading and writing strategies, and their perceptions of the WST as a valid test have any statistically significant relationships with their test performance?

Males did better on the WST than did females; the former outdid the latter 46% versus 20%. Chi-square analysis indicated that gender and passing the WST were not independent events. It is likely that this result has to do with the particular sample in question. Perhaps the males in this sample population happened to be more confident than the females, had taken the WST before, or used a regular collection of reading and writing strategies, while the females did not.

It is clear from the data that the WST seems to impact undergraduates much more than it does graduate students. In this sample, undergraduate students made up 93.5% of the sample population, while graduate students made up only 6.5%. According to Dr. Zeljko Pavic, SJSU's Director of Testing and Evaluation, the ratio of undergraduates to graduates in the sample roughly mirrors that of the general WST population. This may stem from the fact that many graduate students at SJSU have already completed an undergraduate degree at the university, thus exempting them from the WST requirement.

The findings indicate that the majority of students enrolled in LLD 99 classes are non-native English speakers. The data show that the ESL students' perceived reading and writing proficiency in their native language is higher than their perceived English proficiency in both areas. Thus, these findings indicate that the reading and writing ability of these students in English, at least according to their own self-perception, definitely needs to be improved.

This puts ESL students, especially those who did not receive prior education in English, at a distinct disadvantage to native speakers in passing the WST. The fact that there were only 7 native speakers of English in the LLD 99 classes sampled, and students in these classes have generally failed the WST twice, illustrates the above-mentioned observation.

Since the data don't provide clear answers as to why ESL students don't do as well as native speakers on the WST, what follow are some possible explanations as to the reasons why: Firstly, the second language learners in the sample may quite possibly be faced with a lack of familiarity with the genres of academic writing in English.

Secondly, and perhaps even more importantly, ESL students may not be familiar with the cultural thought patterns, which are intrinsic in the English academic writing style.

Kaplan (1966) describes the thought patterns typical of native English speakers thus:

The English language and its related thought patterns have evolved out of the Anglo-European cultural pattern.... The thought patterns which speakers and readers of English appear to expect as an integral part of their communication is a sequence that is dominantly linear in its development. (pgs. 3 & 4)

For many other cultures, this may not necessarily be so, thus causing students to potentially respond in a rhetorical style which is perfectly acceptable in and of itself, but incongruent with the English academic style.

A third possible explanation as to why learners of English as a Second Language may not do as well on the WST as do native speakers of English is that they may not have experienced sufficient time in an English speaking environment to acquire the language skills in English needed to do well on the exam.

A fourth explanation is that students may not be familiar enough with American culture to write about an essay prompt, which may be too American culture-specific for them to fully understand how best to respond to it.

A possible solution to the above-mentioned possible hurdles to ESL student success on the WST might be that English language learners be given a modified version of the test in the future.

It was obvious from the data that students in the sample, both native and non-native English speakers, preferred some strategies to others. Out of the twelve strategies of vocabulary comprehension and use, students definitely had their favorites.

Students perceived the strategy of guessing the meaning of an unknown word to be the most-widely used strategy in this category, while the strategy of using the spell checker came in second place. It is interesting to note that both of these strategies save students time by not requiring the consultation of a dictionary. The spell checker, in particular, has significance for the WST since the use of this strategy may actually lead students to neglect their dictionaries and to become more lax about spelling; this subsequently may cause them to experience spelling problems on the WST, in which situation they are not allowed to use a computer.

The third most widely-used strategy, according to student self-perception, was that of looking up an unknown word in a dictionary, but only 16 students used this strategy most of the time, compared with 45 and 60, respectively for the two above-mentioned strategies. Thus, it appears that, although students are willing to use a dictionary, they are more selective as to when they do so.

The strategy of remembering a word's meaning by translating it into one's native language was perceived by students to be the eighth most-widely used strategy in this group. Those who used this strategy were more likely to pass the WST than those who did not use the strategy, suggesting that cognitive skills do, indeed, transfer between languages. This suggests that those students who translated a word or concept into their first language were more likely to grasp the meaning of the word, since they had a clearer concept of it after translating it into the native language. LLD 98 and 99 instructors might keep this in mind and encourage students to translate from English into the native

language if they are uncertain of a word or concept. For this purpose, it might be practical for students to bring bilingual dictionaries to class.

The least-used strategy under the group of vocabulary comprehension and use strategies, according to student opinion, was that of asking one's teacher for examples. This particular sample population may either have been shy, very independent, or both. Also, it is likely that students wanted to attempt to get the meaning on their own since they realized that they would have to do so on the WST.

Students stated that they reread a paragraph when they cannot understand it. This was claimed to be the most widely-used strategy in the category of reading comprehension. 61 students out of 77 used the strategy most of the time, and 12 used it some of the time. This strategy is conceivably very popular due to its use and practicality not only for reading in daily life, but also for taking the WST.

The second most-widely used reading comprehension strategy, according to students, goes along with the first, and was that of summarizing information when reading. Although not used with anywhere near the frequency of the above-mentioned strategy, the strategy in question was possibly used very frequently because of its potential for use on the WST.

The strategy of observing how classmates write essays was perceived to be the fourth most widely-used strategy in this group. A significant relationship was found between this strategy and passing the WST. This finding would therefore support the classroom practice of peer editing. Students possibly feel more comfortable receiving feedback and constructive criticism from their peers than they do from teachers. LLD 98

and 99 instructors might want to incorporate a mixture of teacher and peer editing into their future classes.

Under the category of grammatical ability, noticing grammar mistakes when proof-reading essays was perceived by students to be the most widely-used strategy. Thirty-eight students used the strategy some of the time, while 31 used it most of the time. Therefore, students were more discriminating about the use of this strategy. The finding that they used it the most in this group of 4 strategies indicates that they consider it to be important. Certainly, students understand the importance of proofreading to WST success, and this might also influence their use of this strategy.

The second most-widely used strategy, in the category of grammatical ability, according to student self-perception, was that of using the grammar checker. Forty-seven students used it most of the time. Eleven students used it some of the time indicating that students were less discriminating about using this strategy. A possible reason for this might be the facility of this strategy. It is easy to use the grammar checker on the computer.

However, the possible reason why this was not the top strategy in this category might be due to the knowledge students have that they cannot use the grammar checker on the WST.

The third most widely-used strategy in this category, according to students, was that of focusing on learning grammar to improve one's writing skills, and it was actually linked to passing the WST. It is true that without a basic knowledge of syntax, it is impossible to compose good essays in any language. The finding that the use of this

strategy and passing the WST are not independent events might support the above-mentioned finding.

According to student opinion, the strategy of deciding in advance what to write about was the most widely-used strategy under the category of improving one's writing skills. Frequency distributions showed that students were not discriminate about the use of this strategy, since a majority (40) of those who employed the strategy used it most of the time. Demonstrated by the high student use of this strategy, it seems that students in this sample are cognizant of the claims that deciding in advance what to write about is a crucial first step in writing an essay and the better and faster one can use the strategy, the more time is saved in situations such as the WST.

Revising one's writing more than once was, according to student opinion, the second most-widely used strategy in this group. Although students were less discriminating about the use of this strategy the high level of strategy use, nevertheless, suggests that students consider revision to be very important.

Making an outline was the fourth most widely-used strategy in this group according to students. It surprised the researcher that this strategy was not at the top of the list, but it could be that students consider deciding what to write about (the most popular strategy in this group) to be less time-consuming, and thus more useful in a high stress, limited time situation such as taking the WST.

The strategy of reading to improve one's writing skill was used by 38 students in the sample. Only 7 students used this strategy most of the time, however, suggesting that this sample population was very discriminate about reading to improve one's writing

skills. It is quite possible that students do not understand the connection that exists between these two skills.

Despite the majority of the sample having failed the WST twice already, the students do not, as a whole, feel that the face validity of the test is poor. Indeed, 56 students considered the WST to have good face validity as a writing test, while less, but still more than half, felt it had good face validity as a grammar test.

Students do feel, however, that more time is necessary to take both parts of the test. Given student responses (56 felt that they did not have enough time to do the essay portion, 69 felt there was not enough time to do the grammar portion), the data seem to imply that students are of the mindset that, given more time, they could do better on the exam.

The research findings also indicate that students do not feel a connection to the essay prompts. The researcher feels that students may be looking for more interesting topics on the WST, something they can get excited about. This, in turn, may produce better essays.

A substantial number of students, most of them ESL students, felt that the WST prompts are too American-culture specific, causing potential confusion to the student as to what the reader may actually be looking for, possibly causing lower-quality essays. An example of this may be if non-native students are asked to write about a specific American holiday, custom, or family tradition, which they might not be familiar with.

The overall sample seems not to have had a problem with using a pen on the WST, a point that was surprising to the researcher, who would have thought that this

computer-generation of students would have had genuine difficulty with using anything not computerized. For example, 60 out of 77 students used the spell checker on the computer most of the time, suggesting that students rely heavily on the computer for spelling and other uses. However, quite a few students took time to write in the margins of the questionnaire that they felt writing with pen was not practical on the WST, and that pencil, with its erasing capacity, would make the already difficult WST-task a much easier one.

In light of these findings there are several pedagogical suggestions which the researcher has for LLD 98/99 instructors:

1) It is recommended on the basis of the findings that students be given extensive practice in the use of the three strategies (translating an unknown work in English into the NL, observing how classmates write essays, and focusing on learning grammar to improve one's writing) that were found to be interrelated with a passing score on the WST.

2) Students should be encouraged to write in-class essays at least once a week and to take weekly mock multiple-choice exams modeled on the English subtest of the ACT. For essays, students should write in pen (not pencil) and not on the computer, since they will have to use a pen on the exam. When assigning essays and practice multiple-choice exams for homework, students can be required to use a clock and give themselves exactly 60 minutes for the essay and 72 minutes for the objective portion, which is the time they will have on the WST. The finding that students as a whole tended to perceive that there was not enough time to do either portion of the exam necessitates

that students get very good at, and feel comfortable with, composing and writing an essay by using pen as well as working through the multiple-choice portion in the time allotted on the actual exam.

3) The findings indicate that the students who have not received prior education in English may be at biggest risk of failing the WST. As such, on the first day of class, teachers are encouraged to find out if their students have received elementary and/or high school education in English. The teacher might expend additional time and energy on those who did not have English medium of instruction in their school education, by giving them additional help to enable them to pass the WST.

4) On the first day of class and throughout the term, teachers should encourage students to ask questions whenever they do not understand an aspect of reading or writing. The fact that this strategy was the least-used, according to student opinion, in the category of vocabulary comprehension and use, suggests that students may not feel comfortable asking their teacher questions.

Finally, LLD 98 and 99 instructors have a most noble purpose: to help their students pass through the stressful hurdle of the WST. With the proper combination of strategy use, cognitive skills in English, and practice in composing and writing a quality essay in 60 minutes, they can train LLD 98/99 students to pass the WST in greater numbers.

Chapter V

Limitations of the Study and Suggestions for Future Research

5.1 Limitations of the Study and Suggestions for Future Research

There are several limitations to this study. The first and most obvious is that the sample is very biased due to its small size and the limited scope of time during which the research was conducted — during the summer of 2001. Future studies must be run over the length of at least two or three semesters.

A second very important limitation is that the current survey does not take into account the fact that the terms “most of the time” and “some of the time” mean different things to different people. Thus, for example, two students who both used a certain strategy 65% of the time might answer differently, one thinking that this percentage qualifies as “some of the time,” and the other surmising that this could be “most of the time.” This is a serious limitation of the study, since it may affect the validity of any results that are generated.

Another limitation is that the survey failed to specify for students the context of the different strategy use questions. Thus, it is not certain what context students were thinking of when they stated that they used a certain strategy. For example, were they answering in terms of strategies they use informally, or in a formal situation such as

school? It should be pointed out that this may have an impact on the validity of the results.

A limitation of the study, which should not be underestimated, is that the survey does not take into account how familiar students were with all the strategies in the questionnaire. In other words, had they been taught all of them, did they know what all of the strategies were? The author acknowledges the fact that students may have been answering questions about strategies without having complete knowledge of them. This could quite possibly affect the validity of the responses.

A further limitation of the study was that information was elicited from students through only one method — written questionnaires — student responses being based on self-report. An effort must be made to incorporate as many data elicitation methods as possible (e.g., observations, written and/or oral journals, etc.) as part of future studies so that there is less risk of biased results.

Another limitation of the study was that the exclusive use of self-report data could conceivably cause problems with the validity and reliability of the results due to the inherent shortcoming of this method. Some of these shortcomings include the subjective nature of the method, with students possibly trying to please the researcher by their answers, and the fact that, with self-report data such as questionnaires, subjects do not necessarily have the opportunity to ask the researcher for clarification if they have questions, thus suggesting a further compromise of validity.

The next limitation of the present study is that it employed only chi-square analyses and frequency distributions. The use of these particular statistical analyses was

necessitated by the limited data available for the present study. Better statistics for future studies, however, might be composed of discriminate and path analyses.

Another significant limitation of the present study is that it utilized only quantitative data analysis. Suggestions for future research endeavors would be that qualitative data analyses be utilized as well. These could be composed of teacher interviews, asking instructors about what they teach and what they feel students are lacking in regards to the reading and writing strategies which might help them on the WST. Other possible qualitative data analyses might include observations of student strategy use during in-class practice for the WST.

Yet another limitation of the study is that only the student perspective was elicited, ignoring the other sides of the WST equation. Future studies should be composed of student, teacher, as well as possible administrative perspectives regarding what they feel students need in order to be prepared to take the WST.

Another suggestion for further research is that LLD 99 and 98 instructors poll their classes from time to time, perhaps using the survey instrument used in this study, or one devised by the instructors themselves, to see if preferred strategies vary by class, by year, by age, by ethnicity, or by gender of student, or if they are constant across these variables. This information might be helpful in terms of planning and/or revising a LLD 99 and 98 curriculum in the future, especially if specific strategies seem to be used over and over.

Findings indicate that a majority of students feel that they need more time on the exam, especially on the essay portion. Future research might focus on the relationship between time allocation and student success.

The purpose of research studies such as this one is to understand why some students fail the WST more than twice and how their success in university education can be ensured. Most importantly, however, it is to ensure that the human factor of the WST — students' anxiety and general sadness over repeatedly failing the WST — is not overlooked. It is in this perspective that suggestions have been made in spite of the limitations of the study.

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APPENDIX A: COVER LETTER TO INSTRUCTORS

Dear LLD 99 Instructor:

My name is Iris Thot-Johnson and I am an MA TESOL student in the Department of Linguistics and Language Development at San Jose State University. As part of my MA thesis, I am conducting a survey on LLD 99 students' reading and writing strategies and their subsequent performance on the WST. The study attempts to get a glimpse of student attitudes towards the WST. Dr. Swathi Vanniarajan is my thesis advisor.

Please have your students fill out the survey and also please make sure that they answer all the questions as truthfully as they can. Completed surveys may be put into the plastic box marked LLD 99 Surveys, which will be located in the LLD office. Please do not hesitate to e-mail me at all if you have any questions concerning this project.

Thank you and I appreciate your cooperation.

Sincerely,

Iris Dolores Thot-Johnson

bachlover@hotmail.com

APPENDIX B: COVER LETTER TO STUDENTS

Dear LLD 99 Student:

You have been selected to participate in a study on the WST. The information will be kept confidential and the data will be analyzed anonymously. Please answer all of the questions as truthfully as you can.

The result of this study, which is part of my MA research at SJSU, will enable the LLD 99 instructors to better understand how the WST impacts students as well as how your reading and writing preferences help you in preparing for the WST.

Your participation is greatly appreciated.

Good luck on your WST!

Sincerely yours,

Iris Dolores Thot-Johnson

APPENDIX C: QUESTIONNAIRE**SJSU LLD 99 STUDENTS' READING AND WRITING STRATEGIES
AND THEIR WST PERFORMANCE**

Please answer all the questions as accurately as possible. This information is being requested for research purposes and will remain confidential. Thank you for your participation.

Part A: Background Information

01. Name _____
Last First

02. Social Security Number _____

03. Gender: Male _____ Female _____

04. Academic level:

Undergraduate _____ Graduate _____

05. What is your major? _____

06. What is your native language? _____

07. How would you describe your current reading ability in English?
(Check one)

- a. below average _____
- b. average _____
- c. good _____
- d. very good _____
- e. excellent _____

08. How would you describe your current reading ability in your native language? (Check one)

- a. below average _____
- b. average _____
- c. good _____
- d. very good _____
- e. excellent _____

09. How would you describe your current writing ability in English?
(Check one)

- a. below average _____
- b. average _____
- c. good _____
- d. very good _____
- e. excellent _____

10. How would you describe your current writing ability in your native language? (Check one)

- a. below average _____
- b. average _____
- c. good _____
- d. very good _____
- e. excellent _____

11. Was your elementary school education in English? (Check one)

- a. Yes _____ If yes, from which grade? From grade _____
- b. No _____

12. Was your high school education in English? (Check one)

- a. Yes _____ If yes, from which grade? From grade _____
- b. No _____

Part B: Reading and Writing Strategies

Vocabulary

13. When you come across an unknown word while reading in English, do you look up the unknown word in a dictionary (either English or bilingual)?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

20. While writing term papers on the computer, do you use a spell checker?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

21. When you are trying to learn the spelling of a new word in English, do you try to remember it by writing it down one or more times?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

22. When you don't know the exact word you want while writing in English, do you attempt to use a different word that has a somewhat similar meaning?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

23. When you don't know the exact word you want while writing in English, do you consult the thesaurus?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

24. When you don't know the exact word you want while writing in English, do you give up what you want to say?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

Comprehension

25. When you don't understand a paragraph while reading in English, do you reread it?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

26. When you read in English, can you distinguish the relevant and important details from the irrelevant and unimportant details?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

27. When you read an article, a story, or a news item in English, do you make connections or comparisons between your own experiences and those of the characters?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

28. When you start to read an academic essay in English, can you make predictions about what the essay will contain in the second half?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

29. When you read a chapter in a textbook or a journal article, or an academic essay in English, can you summarize the information after you have read it in order to remember it?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

Grammar

30. When you read in English, do you pay attention to how sentences are grammatically constructed?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

31. When writing term papers on the computer, do you use a grammar checker?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

32. While proofreading your written essays, do you notice any grammar mistakes?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

Improving Writing Skills

33. Before you start writing an academic essay, do you make an outline?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

34. In order to improve your writing skills, do you decide in advance what to write about?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

35. In order to improve your writing skills, do you decide in advance what content to put in which paragraph?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

36. In order to improve your writing skills, do you read a lot of books?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

37. In order to improve your writing skills, do you focus on learning grammar (either by enrolling in grammar classes or on your own)?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

38. In order to improve your writing skills, do you observe how essays are written by your classmates?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

39. In order to improve your writing skills, do you show your writing to another person?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

40. In order to improve your writing skills, do you revise what you have written more than once?

Yes _____ No _____

If yes: a. Most of the time _____ b. Some of the time _____

Part C: The Writing Skills Test (WST)

41. When are you planning to retake the WST? (Please enter date)

42. What do you think of the WST as a writing test?

Excellent _____ Good _____ Poor _____

43. What do you think of the WST as a grammar test?

Excellent _____ Good _____ Poor _____

44. Do you think that there is enough time (60 min.) to do the essay part of the WST?
- a. Yes, there is enough time to do the essay part of the WST _____
 - b. No, there is not enough time to do the essay part of the WST _____
 - c. I'm not sure if there is enough time to do the essay part of the WST _____
45. Do you think that there is enough time (45 min.) to do the grammar part of the WST?
- a. Yes, there is enough time to do the grammar part of the WST _____
 - b. No, there is not enough time to do the grammar part of the WST _____
 - c. I'm not sure if there is enough time to do the grammar part of the WST _____
46. Does the essay prompt (contentwise) interest you?
- a. Yes, the essay prompt interests me _____
 - b. No, the essay prompt doesn't interest me _____
 - c. I'm not sure if the essay prompt interests me _____
47. Is the essay prompt (contentwise) too American-culture specific?
- a. Yes, the essay prompt is too American-culture specific _____
 - b. No, the essay prompt is not too American-culture specific _____
 - c. I'm not sure if the essay prompt is too American-culture specific _____
48. Do you have a hard time writing with pen and/or pencil?
- a. Yes, I have a hard time writing with pen and/or pencil _____
 - b. No, I don't have a hard time writing with pen and/or pencil _____
 - c. I'm not sure if I have a hard time writing with pen and/or pencil _____

Thank you very much for participating in this research study!