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DIFFERENCES IN CONTENT GENERATING AND PLANNING PROCESSES OF ADULT L_1 AND L_2 PROFICIENT WRITERS

Sophie Beare

A thesis submitted to the School of Graduate Studies
and Research in partial fulfilment of the requirements
for the degree of Doctor of Philosophy in Education

Faculty of Education
University of Ottawa
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There is no one "explanation" of man.

- Jerome Bruner

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ABSTRACT

Differences in Content Generating and Planning of Adult L_1 and L_2 Proficient Writers

Recent research into writing process of second language writers has produced a range of different conclusions: the composing process is different in the second language (L_2) than first language (L_1) writing (Silva, 1993); the writing strategies are similar in both L_1 and L_2 writing (Matsumoto, 1995); adult L_2 writers are less effective in their L_2 than L_1 academic writing (Silva, 1993). In the review of literature, Silva's studies reveal that L_2 composing is more difficult and less effective than L_1 composing (Silva, 1993, 1992). Yet other studies, Berman (1994) and Matsumoto (1995) suggest that writers transfer their writing strategies from L_1 to L_2 provided they possess L_2 grammatical proficiency (Berman, 1994).

The object of the study was to explore content generating and planning processes in proficient L_2 writers. Eight participants took part in this study; each participant was proficient in two languages: English and Spanish and proficient in academic writing in both languages (according to the writing test given).

The participants' first and second languages were either English or Spanish and they had either studied beyond secondary level in both languages or worked in both languages where academic writing was required. The researcher collected data through individual interviews, participant observation and think-aloud protocols during writing, and the writing samples. A profile of each participant, addressing his/her content-generating and planning in writing, was developed. Moreover the study used Bereiter and Scardamalia's model to explain the process.

Similarities not differences between L_1 and L_2 composing processes were found. The only difference between L_1 and L_2 content generating and planning was evident in content generating: English writers generated more utterances during think-aloud sessions than Spanish writers in both L_1 and L_2. It has not provided enough support for the point of view that L_1 composing process is different than L_2 composing for adult L_1 and L_2 proficient writers. In addition, the study has found similarities between L_1 and L_2 strategies used during the writing sessions.

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CHAPTER I

I. INTRODUCTION

1.1 Introduction

In children's and adults' writing, content generating and planning have been studied by several researchers in the last two decades. Among many of the researchers were Flower and Hayes (1980), Bereiter and Scardamalia (1987), Gregg and Steinberg (1980), Odell (1993), Raimes (1987), Shanahan (1984), Sommers (1980), Zamel (1987), Levy and Ransdell (1995). Although most of the research has focused on first language writing processes, more recent research (Silva, 1993; Jones and Tetroe, 1984; Silva, 1992; Friedlander, 1990; Matsumoto, 1995) describes some aspects of the second language composing processes.

Content generating and planning processes in L_2 have been studied in the context of L_1 and L_2 writing research where the processes are either compared (Silva, 1993) or the impact of L_1 on L_2 writing is examined (Friedlander, 1990). In the review of the literature two positions are indicated in the planning of L_1 and L_2 composition processes. Position one: Silva (1993) stresses that " L_2 writing is strategically, rhetorically, and linguistically different in important ways from L_1 writing" (p. 669). Silva's subjects were undergraduate college students who had advanced levels of English proficiency and exhibited a wide range of levels of writing ability. On the other hand, position two, Jones and Tetroe (1987), examining Spanish-speaking ESL writers generating texts in Spanish and ESL, found that the quality of planning transfers from L_1 to L_2 indicating transfer from L_1 to L_2

of some writing strategies. Jones and Tetroe's subjects were ESL students in a 9-month ESL intensive program preparing for graduate studies. Their proficiency ranged from Band 3-4 (Carrol, 1980) at the beginning of the study, and Band 6 at the end of the study, the highest level being Band 9. They were not tested for writing before the research. Matsumoto (1995) also suggests that L_1 writing strategies transfer to L_2 writing, supporting Jones and Tetroe (1987). Matsumoto's subjects were EFL writers who held doctoral degrees from American Universities and published articles both in English and Japanese. During interviews, her subjects reported that they perceived L_2 writing process as "virtually equivalent to their L_1 counter part" (p. 17).

The purpose of this study was to compare first and second language writing processes, specifically content generating and planning, during writing of proficient bilingual writers (English/Spanish). Think-aloud protocols were used as a means to explore both generating and planning processes in L_1 and L_2. The subjects in this study were proficient in academic writing in both their first and second language as they either studied or worked in both languages beyond secondary education. The interpretations of results were based on the knowledge transforming model (Bereiter and Scardamalia, 1987) and different types of planning (Haas 1989).

Findings from this research will contribute to knowledge about first and second language writing. If there are differences between L_1 and L_2 writing processes in proficient writers, then the whole idea of using L_1 theory for L_2 writing is inappropriate. On the other hand, if there are no differences in L_1 and L_2 proficient writers, L_1 theory is a relevant model.

This would also suggest that if the differences between L_1 and L_2 writing exist at lower proficiency levels of L_2, those differences may be due to factors associated with lower L_2 proficiency that impact on the L_2 writing processes.

The review of the literature indicated a gap in the research comparing the differences in content generating and planning processes of adult L_1 and L_2 proficient writers. Some research focussed on undergraduate students in the regular or ESL program (Silva, 1993; Friedlander, 1990; Jones and Tetroe, 1987). These students were still studying their second language and were not fully bilingual. In contrast Matsumoto (1995), who researched L_1 and L_2 writing strategies of professional Japanese EFL writers, found no differences. This study's intention is to fill the research gap and provide some knowledge of the differences, if any, between L_1 and L_2 writing processes of adult proficient bilingual writers (English/Spanish). Thus the research questions are focussed on the differences. In addition, this research expands the base by looking at English\Spanish proficient writers researching L_1 and L_2 differences in content generating and planning of proficient writers.

1.2 Definitions

This study views **writing** as a process of problem solving which can "be conceived of as a form of rhetorical problem-solving, in which the writer's task is to construct a text satisfying a set of rhetorical goals" (Galbraith, 1992, p. 45).

In order to explain content generating and planning processes adequately, a definition of process is reviewed at this point. **Process** is defined as "the linking of sequences of

action/interaction as they pertain to the management of, control over, or response to, a phenomenon" (Strauss and Corbin, 1990, p. 143). Thus **content generating** process, a part of the text generation process, comprises a) generating ideas or content to be used in the written text and b) generating ideas to determine how to organize the content. For this research, "content generating" is defined as a sequence of actions/interactions pertaining to management of, control over, or response to, retrieving information from long-term memory. Content and idea generation will be used interchangeably. A **planning process** in writing would be explained as a sequence of actions/interactions pertaining to the management of, control over, or response to creating a text. The writer faced with a writing task develops a mental representation of the task followed by problem analysis of the tasks, goal setting, generating content and organizing production of the text. Content generating is used by the planning process to create a text.

The following definition is of writing strategy. Since "writing strategy" can be confused with "process", it is important to clarify both. **Writing Strategy** is defined by Cornaire and Raymond (1994) as a plan of action or a conscious intervention in dealing with a task for the purpose of problem solving or reaching a goal. Leki (1995) discusses writing strategies as the kind of actions that good writers undertake to produce a written text. An example of a writing strategy would be rereading the text several times (Leki, 1995).

The word **proficient** is used throughout the text. To define **proficient** in this study, the researcher uses Stern's (1983) description/classification of "full professional proficiency" or "bilingual proficiency" of a language, whereby the individual with "bilingual" or "full

proficiency" is able to participate in all language contexts on practical, social, and professional topics. Although **proficient** is used more frequently with speaking, the researcher feels it is more appropriate in this study to use **proficient writers** rather than **expert writers** as it is often used in the dichotomy, novice/expert (Bereiter and Scardamalia 1987). Since this study does not address the novice/expert issue, the word proficient writers will give the reader a clearer and more specific description.

1.3 Conceptual Framework

According to Strauss and Corbin (1990) there are two ways to view cognitive processes during writing. One way is to view a process as a progressive movement, indicating phases or stages, or the second way is to view it as nonprogressive movement where changes in action/interaction are in response to changing conditions. The former or the process viewed as a progressive movement, seems to be a more adequate view to adopt in this study since the writers will be producing a text, moving through various stages. To further explain the writing process, its recursiveness must be included. "Writers plan, then generate, replan, regenerate" (Gould, 1980, p. 112). Thus the writer moves in a recursive manner while composing or developing a text from conception of ideas to a written product, indicating progressive movement. Bereiter and Scardamalia's knowledge transforming model supports the recursive movement whereby the writer moves back and forth (Fig. 5) from content area to rhetorical area.

The knowledge transforming model developed by Bereiter and Scardamalia, (1987) was chosen as part of the conceptual framework for this study. The choice of this particular

model was based on the assumption that Bereiter and Scardamalia's model (1987) gives a clearer view of both the generating and planning processes in the model. The Hayes and Flower model (1980) does not clearly explain the recursiveness in writing (Fig. 2). According to Bereiter and Scardamalia (1987), both generating and planning are embedded in the model. Bereiter and Scardamalia (1987) indicate that a proficient writer would use the knowledge transforming model whereas the novice writer would use a knowledge telling model. Writers who use the knowledge transforming models "could probably be found among people at advanced levels in any intellectual discipline. They are used to considering whether the text they have written says what they want it to say and whether they themselves believe what the text says" (Bereiter and Scardamalia 1987, p. 11). Their model is very interactive and dynamic.

Content generating and planning is the main focus in this study; however, planning can be broken down to conceptual, process, rhetorical, and sequential (Haas, 1989). For this study, sequential planning (Haas, 1989) is included either in the other three or in editing as it was difficult to separate it from the other three. Content generating and planning processes of proficient bilingual writers are being compared. The researcher will focus on how much attention will be given to these processes during think-aloud session. The following areas are explored: attention given to generating and planning processes and writing strategies used during writing. Since both models, Bereiter and Scardamalia's (1987) and Haas (1989), were developed for L_1 not bilingual writers, the researcher has integrated the components of these models to meet the objectives of this study.

1.4 Research Questions

The aim of the study is to examine content generating and planning processes in proficient L_2 writers while they compose in their first and second languages. The participants used Spanish and English in their two writing sessions, either as their first or second language. The research literature is divided; some studies suggest the cognitive processes are similar in both L_1 and L_2 writing (Jones and Tetroe, 1987; Matsumoto, 1995) others suggest they are different in L_1 than L_2 (Silva, 1993).

FIRST RESEARCH QUESTION - Content Generating and Planning Profiles for Groups

Do the content generating and planning profiles vary cross-linguistically (Spanish/English) or (first/second language) from group to group in proficient bilingual writers? Four different situations:

a) L_1 Spanish and L_1 English

b) L_2 Spanish and L_2 English

c) L_1 Spanish and L_2 English

d) L_1 English and L_2 Spanish

SECOND RESEARCH QUESTION - Writers' strategies for facilitating their content generating and planning during writing.

What writing strategies are used in facilitating content generating and planning during writing by proficient bilingual writers?

Since the study has an exploratory component, the researcher looks for patterns, ideas, or hypotheses in addition to the research questions already listed (Vogt, 1993).

For research question one, content generating and planning profile, the researcher will give a general or overall profile for each group as L_1 subjects (English) or L_1 subjects (Spanish) or L_2 subjects (Spanish) or L_2 subjects (English). Research question two focuses on writing strategies.

The above two questions have been chosen to meet the objectives of the overall purpose of this study. Question one establishes whether there are differences in content generating and planning profiles between L_1 and L_2 in proficient bilingual writers. Although, question two deals with writing strategies, it provides information indirectly about the process, in that writing strategies facilitate the processes. A writer trying to generate content may use elaboration, a writing strategy. Thus his/her writing strategy will indicate what process the writer is using - is he/she generating or planning?

1.5 Scope of the Study

Since this study's results were derived mainly from think-aloud protocols, the constraints directly influencing the think-aloud protocols are considered very important. The use of think-aloud protocols do not always ensure the writers' verbalization of their reflective thought in writing during the experiment. Writers may not report all of their thoughts. Moreover, the classification of the writers' verbalized data may not be exact; some statements may be attributed to planning rather than content generating because of the participants' choice of words during think-aloud sessions. A participant may be saying something that appears to be related to content generating process but in reality be related to planning.

Think-aloud protocols have also been criticized because one cannot compare a writer's thinking under the unnatural conditions of a think-aloud context to that in a natural composing context. Bereiter and Scardamalia (1987) suggest that "writers' verbal reports should be taken as data that the investigator uses, often in conjunction with other data, in constructing a description of the inferred process." (p. 43). They stress that think-aloud protocols do not offer direct insight into mental processes. Think-aloud protocols may give insight into the flow of attention during writing but they do not reveal why attention shifts (Bereiter and Scardamalia, 1987).

Furthermore, Garner (1988) points out that subjects may tell more than they can know. In other words, they may report using writing strategies that they do not, in fact, use. In addition to think-aloud protocols, interviews were conducted with each subject to get a general feeling about their writing habits. One of the main criticisms of the interview methods is that the subjects elicit responses to hypothetical situations which may not be interpreted correctly.

In addition to the think-aloud protocols, there were other constraints worth mentioning. Finding participants who are equally proficient in Spanish and English was a difficult task. Unlike French/English bilingualism, at high levels of proficiency, which is required in many government offices, Spanish/English bilingualism is very limited in the Ottawa area, except for a small group of people. These individuals can be found among language teachers, journalists, and writers. This is a very exclusive group.

1.6 Organization of the dissertation

This study is presented in six chapters, beginning with this introductory chapter. Chapter two will present review of the literature related to the content generating and planning processes in writing, including writing strategies. In chapter three, the methodology of the present study will be outlined. The description of the methodology includes design issues such as selection process of the participants, description of participants, procedure, and think-aloud protocols. Data analysis or results of the study are presented in chapter four. Analyses focus mainly on think-aloud protocols; however, data from interviews, researcher observations and the written products are used to support the think-aloud data. Such issues as cross-linguistic and cross-cultural differences, composing and revision strategies are discussed. Chapter five presents interpretation of the results and chapter six deals with implications for theory, teaching, and further research.

1.7 Summary

The introduction has provided a brief background for the research questions. Definitions of the key words in the study are given, followed by research questions. Scope of the study addresses the issues of using think-aloud protocols, and in the last section of the introduction, the organization of the dissertation is given.

CHAPTER II

2. REVIEW OF THE LITERATURE

2.1 Introduction

As mentioned in the introduction, the review of the literature indicated a gap in the research regarding the differences in content generating and planning processes of adult L_1 and L_2 proficient writers. Thus the purpose of this review of the literature is to provide an overview of the differences and the findings of recent research with respect to content generating and planning processes in L_1 and L_2 writing.

In the following sections the researcher will review:

- Early Research on Cognitive Processes in Writing
- Writing Models
- Writing Strategies
- The research on differences in L_1 and L_2 content generating and planning for adult writers
- Possible explanations for the L_1 and L_2 differences

2.2 Early Research on Cognitive Processes in Writing.

Early research on cognitive processes in writing reveals various subprocesses: planning, translating and reviewing (Hayes and Flower, 1980). To research the cognitive processes, protocol analysis was used by Hayes and Flower (1980). Through protocol analysis, the researchers described the cognitive processes that the subject uses while performing the task. Their 1980 article provides a very concise description of the organization of the

writing process. Their writing model continues to be referred to today, particularly the three basic subprocesses: planning, translating, and reviewing (Levy and Ransdell, 1995, p. 767). "Planning includes creating ideas, organizing ideas, and setting goals to achieve during composition", (Levy and Ransdell, 1995, p. 768). Translating deals with converting these plans to written text; and reviewing "includes evaluating text already in place as well as editing errors", (Levy and Ransdell, 1995, p. 768).

To further the understanding of the writing process, Collins and Gentner (1980) presented a framework for the development of a theory of the writing process, identifying two separate processes: idea production and text production. The authors view idea production as a recursive process and text production as a linear process. They advise that idea production comes before text production. Idea production is equivalent to content generating and planning in this study, and text production is equivalent to the written product in this study. Idea production as viewed by Collins and Gentner (1980) appears similar to planning in Hayes and Flower's (1980) model, text production would match the translating and reviewing in Hayes and Flower (1980).

At the same time, Bereiter (1980) examines cognitive processes by reviewing L_1 writing research in his article "Development in Writing" where he addresses issues related to cognitive-development framework. He explains that a complete processing model of writing should deal with three aspects: "cognitive moves that make up writing and their organization; levels of processing, (intentional to automatic); how processing capacity is deployed to these various functions" (Bereiter, 1980, p. 78). One can interpret these as

follows. The first aspect deals mainly with planning and generating, the second focuses on text production such as translating, generating, reviewing. The third deals with overall planning.

Content generating and planning were also discussed by Gould (1980) who did experimental studies (about 20 experiments / 10 participants each) with "white collar" workers between 20-65 years old. Participants were told to write a letter given a particular task (memo, report, dictating a letter). He found that "during composition, people do not follow a fixed sequence of processes but alternate back and forth among generating, planning, reviewing, editing and assessing other information (Gould 1980, p. 111). His position is that the processes of generating and planning are interactive; according to his view, planning is the main process in composition. In fact, "on average, planning was two-thirds of composition time, regardless of composition method" (Gould, 1980). "Planning occurs when contemplating the topic to be described, when developing a mental outline, when generating paragraphs or sentences guided by this goal-oriented outline, when deciding what information is required, when selecting words for a sentence." (Gould, 1980, p. 111). His definition of planning is quite broad as it includes generating. He describes composition as a recursive process: writers plan, then generate, replan, regenerate (Gould, 1980, p. 112). (Levy and Ransdell, 1995) found planning was also a major part of the writing process but generating was equally a major part. Planning took "45% in the first 5 minutes, but stabilized at near 30% thereafter. Generating text initially consumed 40% of the writers' time, peaked at 50% mid way, and then declined to its original level." (Levy and Ransdell, 1995, p. 767).

Yet an additional factor was added to the organization of the composition processes. In his article, "Specific thoughts on the Writing Process," Wason (1980) brings in another dimension to the writing process: motivational dynamics. He says, the difficulty with writing as seen in procrastination indicates that writing may not be a "natural process"; therefore, the role of motivational dynamics is very crucial (Wason, 1980). Wason's observations of the writing process included Ph.D. students' writing. He explains why writing is difficult by saying that "writers do two incompatible things at the same time: say something, and say it in the most acceptable way" (Wason, 1980, p. 133). To support Wason's position of writing "not being a natural process", Odell (1980) describes writing as "a deliberate attempt to engage in some of the conscious cognitive processes that constitute thinking" (p. 145) known as the process of discovery. Perhaps Wason's and Odell's notion of deliberate conscious process could be explained by Bereiter and Scardamalia's knowledge transforming model (1987) discussed in the next section.

2.3 Writing Models

2.3.1 Hayes and Flower (1980a) Structure of the Writing Model.

Hayes and Flower's (1980) model offers an excellent background for the discussion of Bereiter and Scardamalia's (1987) knowledge transforming model. Hayes and Flower (1980) model addressed both content generating and planning presented in Fig. 1. This model was developed on the basis of considerable think-aloud data gathered through research. Hayes and Flower explained that their model "is a model of competent writers" (Hayes and Flower, 1980, p. 29). They identified the organization of writing processes

and divided the writing environment into three major components: the task environment, the writer's long-term memory, and the writing process.

The task environment refers "to everything outside the writer's skin that influences the performances of the task" (Hayes and Flower, 1980, p. 12.). Thus it includes the topic, audience, the text, and any factors in the environment relevant to writer's motivation. The writer's long term memory refers to the knowledge about the topic and the writing of it stored in long-term memory. The writing process consists of various sub-processes presented in Fig. 1. They are planning, translating, and reviewing.

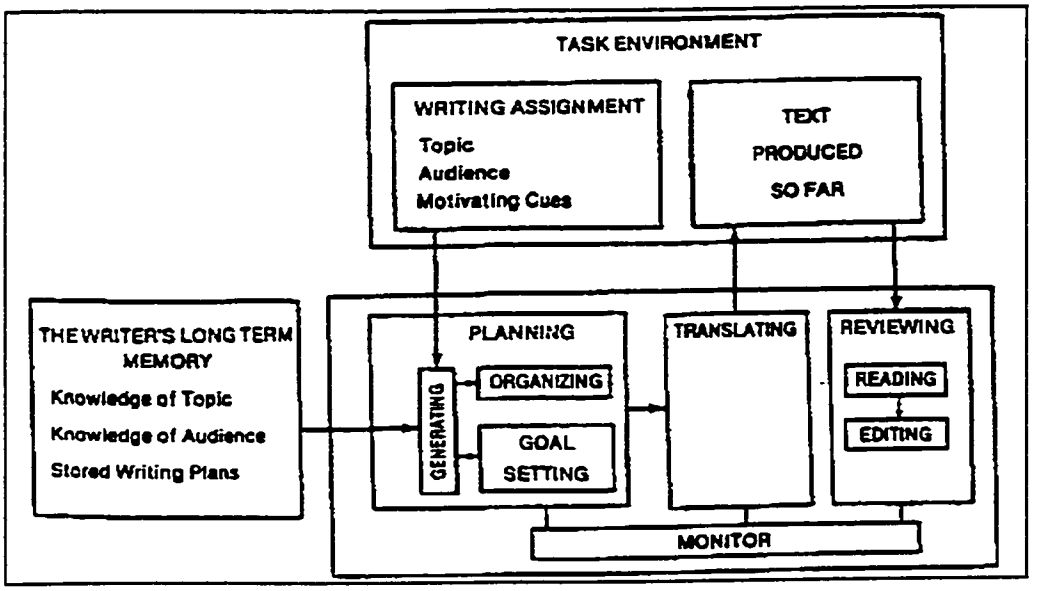

Fig. 1 Structure of the writing model, Hayes and Flower, 1980. (p. 11)

The task environment guides the planning process that sets in motion other subprocesses such as organizing, goal setting, generating. Hayes and Flower (1980) explain planning by stating that "the function of the planning process is to take the information from the

task environment and from long-term memory and to use it to set goals and to establish a writing plan to guide the production of a text that will meet those goals" (Fig. 1). In Hayes and Flower's (1980) model, generating is a subprocess of planning; the other subprocesses are organizing and goal setting. According to the researchers, the goal of organizing is "to select the most useful of the materials retrieved by the generating process and to organize them into a writing plan" (Hayes and Flower, 1980, p. 14). "The goal setting process identifies and stores criteria (by which to judge a text) for later use in editing (p. 15)". However, the authors consider translating and reviewing as two writing processes not subprocesses of the planning process. According to the Hayes and Flower (1980) model, reviewing (reading and editing) appears to have a separate category (Fig. 1) and does not clearly address the recursiveness in writing; for example, arrows going to goal setting do not return. Although the authors stress that the model is "recursive and allows for a complex intermixing of stages (p. 29)," they also explain that their model "can serve as a target to shoot at, and hence a guide to further research on writing" (Hayes and Flower, 1980, p. 29). Recent researchers in cognitive processes used Hayes and Flower's 1980 writing model to explain some of their findings (Levy et al, 1995; McCutchen et al, 1997; McCutchen et al, 1994).

However Bereiter and Scardamalia's (1987) knowledge transforming model (Fig. 4) has the revision component embedded in the model where the expert writer reviews throughout the writing process by going through problem analysis and problem translation.

Gailbraith's interpretation (1996) of the knowledge transforming model captures the essence of how this study views the model: "in the knowledge - transforming..., writing is directed towards rhetorical goals: the writer's aim is to design a package for the reader. In consequence, planning is no longer a matter of organizing ideas associatively retrieved from memory, but involves a detailed analysis of the rhetorical problem, leading to the construction of a complex hierarchy of goals and sub - goals which guide the selection and construction of ideas to be included in the text. Furthermore, this is a dynamic, recursive process in which the writer continually evaluates ideas and text with respect to rhetorical goals, and in which goals are modified as text is produced" (Galbraith, 1996, p. 122).

2.3.2 Generating Process

To clarify Bereiter and Scardamalia's generating process, the Hayes and Flower's model will be discussed first as it provides a clear explanation of content generating (Fig. 2). Generating content, a part of the text generation process studied in this research, comprises a) generating ideas or content to be used in the written text and b) generating ideas to determine how to organize the content. Moreover, for the purpose of this discussion, "content generating" will be regarded as retrieving information from long-term memory guided by the planning process (Hayes and Flower, 1980). The words "content or idea generation" will be used interchangeably as they both refer to generating content of the text (Caccamise, 1987, uses idea generation).

In order to generate content or an idea, the writer must first develop a retrieval cue with which to probe long-term memory. Its retrieval probe/cue derives from information about

the topic and the audience given in the task environment (Hayes and Flower, 1980). According to Hayes and Flower (1980), "each retrieved item is used as the new memory probe" (p. 13) so that items retrieved from memory are in associative chains (Fig. 2). If a retrieved item, a single word or sentence, succeeds in acting as a current memory probe, it proceeds vertically; if it fails, it exits. A new retrieval cue begins. When a retrieved item is not relevant, the chain is broken and the search starts again. Figure 2 presents generating content as a recursive process; according to Hayes and Flower (1980), even the most persistent memory searches never extend more than three retrievals beyond useful material, indicating search chains not being broken but moving back and forth.

The success of content-generating is influenced by many factors. The writer must focus on idea/content generation and not confuse it with text production say Collins and Gentner (1980).

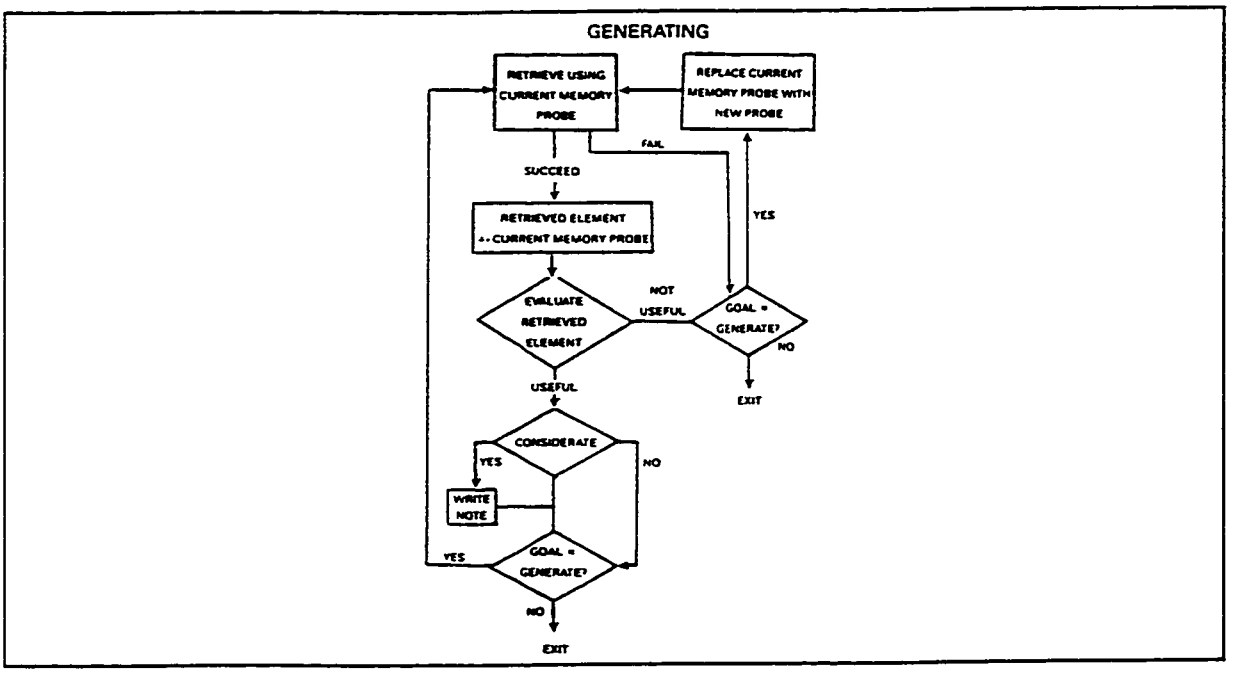

Fig. 2 The structure of the GENERATING process, Hayes and Flower, 1980. (p. 13)

Caccamise (1987) points out that content generation is influenced by the writer's long-term memory and the task requirements; however, the retrieval process or the size of the search is affected by the topic, the intended audience and the writer's knowledge. She recruited her subjects from an introductory psychology class and used think-aloud protocols to find out about idea generating in writing. Caccamise (1987) further stresses that idea generation is influenced by the structure of long-term memory, since the writer's knowledge base (LTM) can be viewed as a more-or-less fixed entity.

Caccamise (1987) reports the following findings from her study done at the University of Colorado:

a) rate of idea generation will decelerate over time

b) more closely related ideas will occur in temporal proximity

c) number of idea chunks will diminish over time

In her study (1987), Caccamise found that a writer's long-term memory can be a powerful constraint on idea generation; for example, if the topics were familiar, the writers generated more ideas than when the topics were unfamiliar. Moreover, she adds the idea generation process operates recursively.

Bereiter and Scardamalia (1987) present a knowledge telling model (Fig. 3) which has some characteristics of the Hayes and Flower (1980) generating model. Moreover, the knowledge telling model is embedded in the knowledge transforming model to assist content generating along with other components of the process so that there is a continuous

flow modifying the text. The knowledge telling and knowledge transforming are explained in the next section.

2.3.3 Bereiter and Scardamalia's Models of Writing (1987)

Bereiter and Scardamalia present two models of writing : one for novice writers and one for expert writers (1987). Knowledge telling model (Fig. 3) describes the process of novice writers and knowledge transforming model (Fig. 4) of experts writers. (The knowledge transforming model will be used to explain processes in this study).

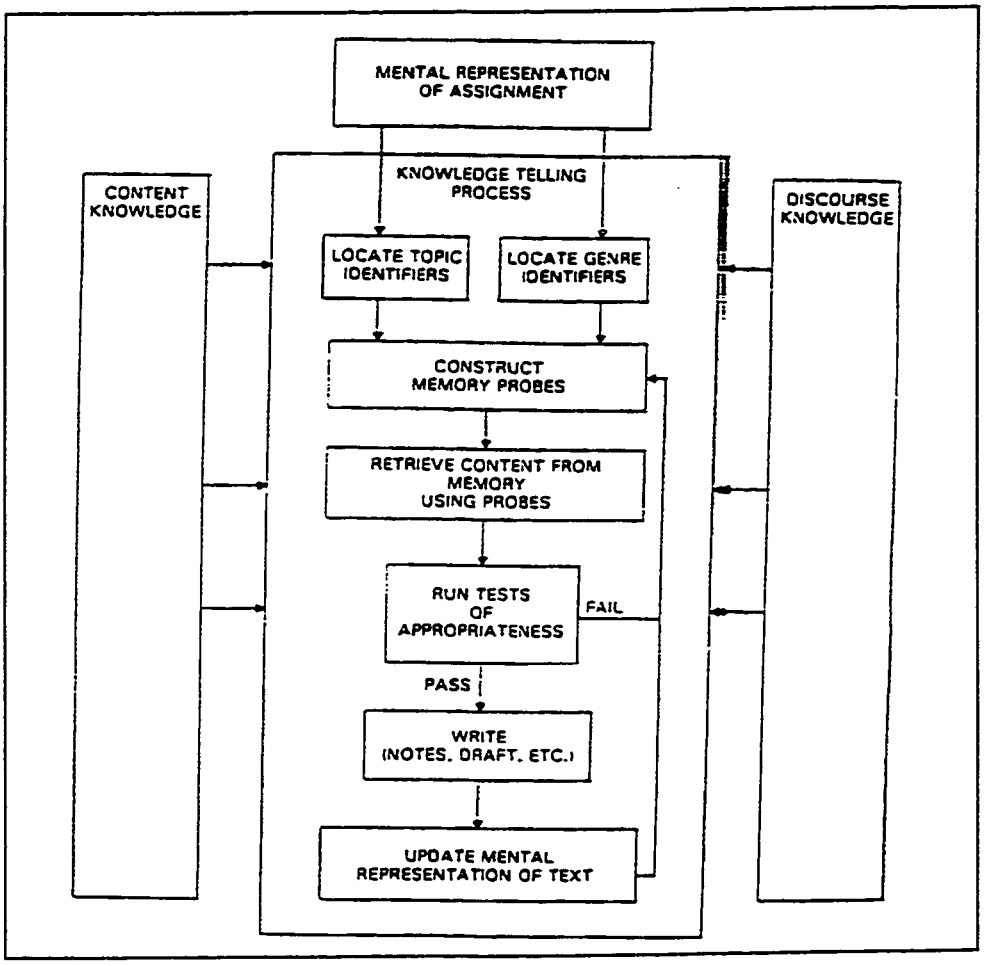

Figure 3. Knowledge Telling Model
(Bereiter and Scardamalia, 1987, p. 8)

Knowledge telling relies a great deal on available material in the long term memory. The individual writer probes content and discourse knowledge and writes the ideas down as they come. The knowledge telling model is based mostly on generating content and genre that are relevant to the topic but there is little transformation of thought. Most novice writers use this type of approach to composing. According to Bereiter and Scardamalia (1987, p. 9), this process is "the straight-ahead form of oral language production and requires no significantly greater amount of planning or goal-setting than does ordinary conversation." The topic, discourse schema (or knowledge of the conventions of that discourse), and text already produced act as cues for content generating. The writer uses the cues to retrieve material from his long term memory. The knowledge-transforming model illustrates the interaction between text processing and knowledge processing , Figure 4. Not having inputs from conversational partners, writers use cues for content retrieval. Cues include words or ideas that are retrieved. Bereiter and Scardamalia (1987) describe two kinds of operations on long-term memory in regard to content generation. Metamemorial search "yields knowledge about the availability of content" (p. 65) (i.e. provides the writer with an awareness of what knowledge is available in memory), and enhances the availability of that knowledge. Goal directed search is a kind of operation (top-down search) which is directed toward some goal such as proving a point or amusing the reader (p. 65). The operations that direct content generation are executed by the planning process of the writer. In the content space, problems of belief and knowledge are worked out. In the rhetorical space, problems of achieving goals of the composition/text are dealt with (Bereiter and Scardamalia, 1987, p. 11).

It is assumed that a proficient writer who is presented with a task, develops a mental representation of that task and begins problem-solving operations by examining what content needs to be generated. The writer then sets goals and starts up with the content problem space using the knowledge telling process (Fig. 3).

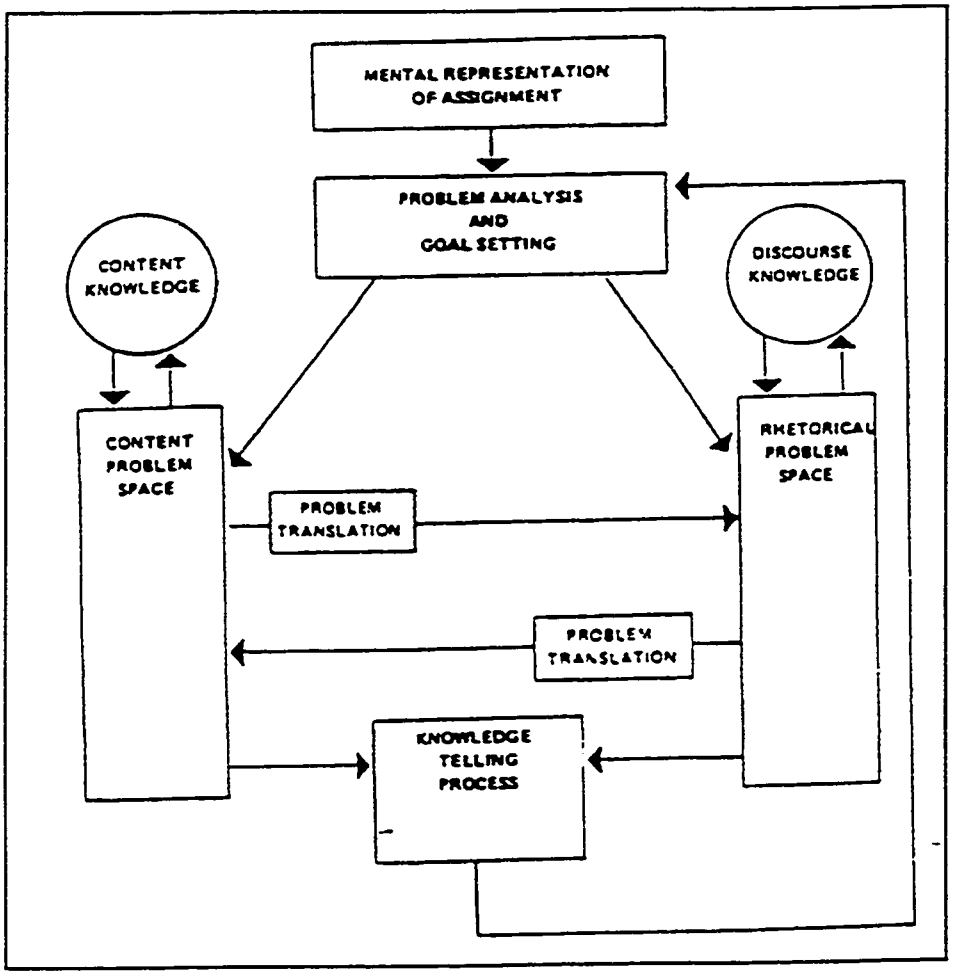

Figure 4. Knowledge Transforming Model
(Bereiter and Scardamalia 1987, p. 12)

The knowledge transforming model Figure 4, unlike the knowledge telling model, shows arrows going back and forth from content problem space to rhetorical problem space indicating a recursive process where thoughts are transformed as the writing progresses or continues. In figure 4, the knowledge-transforming model, for example, a writer works

in the rhetorical space on a problem of clarity, and may find herself moving to the content space to work on this problem definition. In thinking about a definition, the writer may discover other issues. The process is thus recursive with the writer going back and forth between content and discourse content space.

This constant interaction between content problem space and rhetorical problem space is through one of the following: 1) problem translation either from the rhetorical point of view or on the basis of content, and 2) knowledge telling process affecting problem analysis. As per figure 4, knowledge telling is embedded in the knowledge transforming model.

The knowledge telling process relies on available material in memory. The knowledge telling process is responsible for generating most of the content within the knowledge transforming model. In the knowledge transforming model, writing is under the control of a problem-solving executive. Proficient writers, of course, use the knowledge transforming model. Within the knowledge transforming model, Bereiter and Scardamalia (1987, p. 261) describe goal-setting activity as essential to promoting the knowledge transforming process. In goal-setting, Bereiter and Scardamalia explain, writers do not just respond to problems and ideas but they "decide where they want to go cognitively and apply their mental resources to getting there." (p. 261).

According to the knowledge transforming model (Fig. 4), the planning process takes place during composing, since "the distinctive capabilities of the knowledge transforming

model lie in formulating and solving problems and doing so in ways that allow a two-way interaction between continuously developing knowledge and continuously developing a text" (Bereiter and Scardamalia, 1987, p. 12). Thus an expert writer would need to plan effectively during the writing process in order to negotiate the two problem spaces (content space and rhetorical space).

According to Bereiter and Scardamalia (1987, p. 303), the difference between novice and expert writers indicates that novice writers possess productions for transferring information from the content space to the rhetorical space, but lack productions for the return trip (Fig. 5).

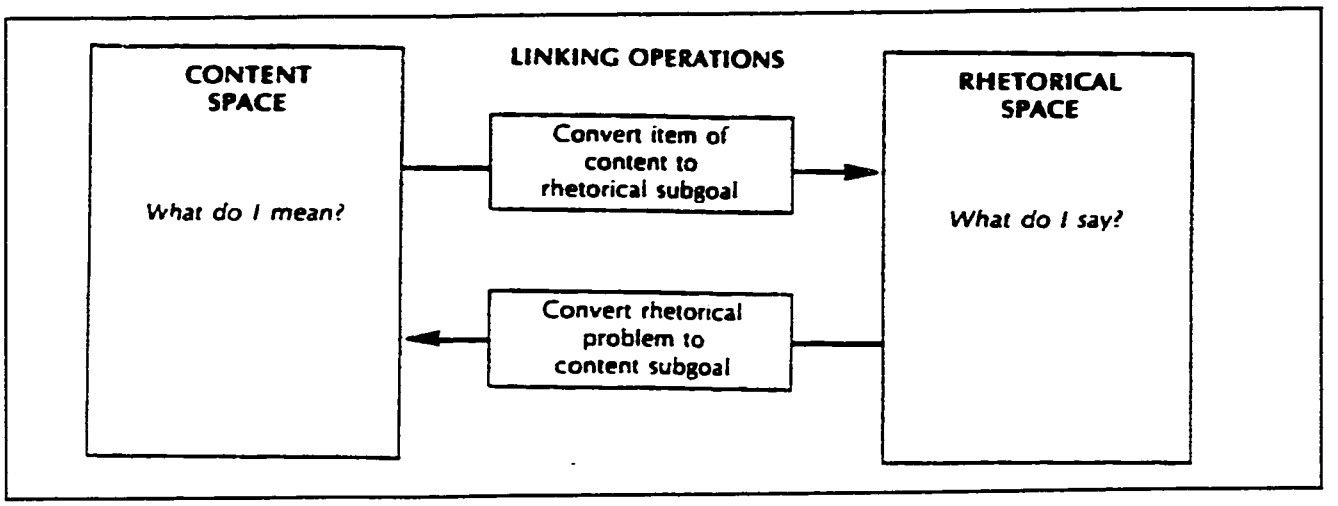

Fig. 5 A dual problem space model of reflective processes in written composition. (Bereiter and Scardamalia, 1987, p. 303)

The knowledge transforming model (Bereiter and Scardamalia, 1987) is used in the analysis and interpretation of the writing processes revealed by this research. In addition Haas' Planning Categories (1989) provide an approach to analyze planning processes found in this research.

2.3.4 Haas' Planning Categories (1989)

Along with Bereiter and Scardamalia's 1987 model, Haas' categories have been used for the analysis of the data for this study. The rationale for inclusion of Haas' planning categories is this. Haas (1989) provides a very clear break-down of different types of planning within the writing process. She conducted her study (1989) on the effects of word processing on planning of 10 university undergraduate students and 10 experienced writers (teachers, professional writers, designers). Her research is an excellent resource in terms of the definition of planning and the different types of planning within the writing process.

Haas (1989) states that planning can be seen on a continuum: high level plans (top down) for audience effect or topic and low level plans for spelling and vocabulary. She describes four kinds of planning: process planning (high level), rhetorical planning (high level), conceptual planning (high level) and sequential planning (low level) (Haas, 1989, p. 193). **Process planning** (high level), is used by writers to help themselves to keep on task. Writers pose statements to themselves as "I'll reread this" or "I guess I'll finish up". In **rhetorical planning** (high level), writers attend to concerns regarding the audience (reader), context, purpose, and the writer's own persona or voice. Examples of questions or statements the writers pose to themselves: "How am I coming across?" or "I want to convince them that this view is wrong" (Haas, 1989, p. 194). While performing **conceptual planning** (high level), the writers use "plans to guide" the creation of the conceptual meaning and structure of the text and include generating content, exploring the topic, developing ideas, deciding what to talk about, organizing, elaborating and coming

up with examples (Haas, 1989, p. 194). Writers may say to themselves such as "So now I need to get real specific". **Sequential planning** (low and high level), focuses on lexical or syntactic arrangement, or the textual expression of meaning. The following questions are typical of writers doing sequential planning: "Should I say students or kids?" (low level), "I will make this two paragraphs" (high level) (Haas, 1989, p. 195).

2.3.5 Odell's Reflection-in-Action as an explanation of planning.

Odell's Reflection - in - Action supports indirectly the use of think aloud procedure. Haas (1989), Bereiter and Scardamalia (1987) and Odell (1993) view planning during writing as a reflective activity. "Planning is generally seen as a reflective activity, occurring both before and during writing" (Haas, 1989, p. 182). This explanation justifies the use of think-aloud as an appropriate method to study planning in writing.

Planning, a component of knowledge transforming model, can be observed while reflection in writing. To explain planning, Odell (1993) uses Schon's (1983) terminology, reflection-in-action. Reflection-in-action "is our ability to think through the consequences and implications of what we are doing as we are doing it", (Odell, 1993, p. 97). He continues by saying that reflection-in-action involves solving the problem that needs to be solved. Expert writers would attend to their writing by using reflection-in-action and through use of language they would "turn back on" and reshape their thinking. Reflection can be explained as "an internal dialogue" that the writer uses. The writer asks and attempts to answer questions that guide the composing process. The questions are

generated by translating problems encountered in the rhetorical space into sub-goals to be achieved in the content space (Bereiter and Scardamalia, 1987).

Reflection-in-action can be captured by think-aloud protocols which "do not change how writers generate texts." (Levy and Ransdell, 1995, p. 770).

2.3.6 Flower's Theoretical Framework for Planning

Flower's three planning strategies provide an additional component to the way this study views planning in writing. Flower (1994) developed a new approach to studying the writing process that adds social aspects to cognitive theory. Flower (1994, p.132) states that planning is structured even if the writer does not control it. According to Flower, this structure is based on three planning strategies - knowledge driven, schema-driven and constructive planning. This model is the most recent one proposed by Flower (1994) and appears to be somewhat similar to Bereiter and Scardamalia (1987) models, knowledge telling and knowledge transforming. The knowledge telling model (Bereiter and Scardamalia, 1987) seems to be the basis of knowledge-driven planning (Flower, 1994) in that Flower's model operates if the "writer's knowledge is adequately developed and already structured to meet the needs of the rhetorical situation" (p. 134). Bereiter and Scardamalia's model relies on "what's next" implying that the writer possesses the knowledge. However, Flower argues that the two models are different in that her model is more sophisticated so that "it allows serious encounters with one's knowledge as writers come to terms with what they think..." (Flower, 1994, p.135). On the other hand, the

knowledge telling model has "a very limited range of representations"(Bereiter and Scardamalia, 1987, p.341) and is used to explain the writing process of novice writers.

Schema-driven planning uses schema such as discourse conventions and "operates to guide the composing process" (Flower, 1994, p132). Flower uses schema to refer "to a well-structured body of information that can be shown to be shared in some meaningful way within a community, as in our schemas for eating in restaurants or going to birthday parties" (Flower, 1994, p.133). Once again this type of planning shows some resemblance to knowledge telling model (Bereiter and Scardamalia, 1987).

The third type of planning, constructive planning, is a response to task that knowledge- and schema-driven planning cannot handle. It resembles Bereiter and Scardamalia's (1987) knowledge-transforming model for the writer transforms the knowledge instead of presenting it. According to Flower (1994), this planning will work if the writer deals effectively with the processes of representation, development, integration, instantiation, and conflict resolution (conflict resulting from trying to integrate all the other processes). Flower's planning model (1994) provides further support for Bereiter and Scardamalia (1987) models (knowledge telling and knowledge transforming) "it frequently embeds both knowledge-driven and schema-driven planning within itself" (Flower, 1994, p.136) just as knowledge telling is embedded in knowledge transforming.

Although this theory contains a very interesting addition of a socio-cultural component, it would be very complex to use for analysis in this study. The subjects are bilingual and

bicultural (Spanish\English) adults who are linguistically and culturally proficient (working in both languages and both cultures at academic institutions). Thus, the knowledge transforming model of Bereiter & Scardamalia (1987) is more appropriate, as it is clearly aimed at proficient or expert writers.

This section has dealt with content generating and planning in L_1 writing. The next topic is Writing Strategies in L_1 and L_2 writing.

2.4 Writing Strategies

In the late 80's and early 90's research in the cognitive processes in writing focused on writing strategies. Leki (1995) states "strategy training for writing has been — oriented toward determining what good writers do" (p. 236). Hayes and Flower (1980) indicated that with good writers a reflective activity played a role in the compositions (cited by Cornaire and Raymond, 1994). Bereiter and Scardamalia point out that revision seems to be one of the strategies used particularly by expert writers and less so by novice writers (Bereiter and Scardamalia, 1987, p.22).

K. Johnson (1992) explored writing strategies that second language writers engage in during sentence-combining. She found that L_2 writers engaged "most frequently in restating content, constructing meaning, and planning" (p. 70) as they completed sentence combining tasks. Johnson collected data from nine advanced-level ESL graduate students. The researcher considers the sample size small and recommends research on larger samples and a range of English language proficiency levels. Later in 1995, Leki found 10

categories of different writing strategies. The subjects were very flexible when using different writing strategies in that they would shift from one writing strategy to another if the first one did not produce results. The subjects were ESL students enrolled at a large state university in the U.S. for the first time. The following ten categories of different strategies are:

Clarifying Strategies - (e.g.) talking to the teacher about the assignment.

Focusing Strategies - (e.g.) rereading the assignment several times.

Relying on Past Writing Experiences - (e.g.) referring to past experiences in writing.

Taking advantage of First Language/Culture - (e.g.) accessing knowledge and experience of L_1.

Using current Experience or Feedback to Adjust Strategies - (e.g.) feedback given.

Looking for Models - (e.g.) finding models in articles, books.

Using Current or Past ESL Writing Training - (e.g.) using a strategy taught in the writing class.

Accommodating Teachers Demands - (e.g.) meeting the teacher's requirements.

Resisting Teachers' Demands - (e.g.) resisting the assignment by ignoring the criteria given by the teacher.

Managing Competing Demands - (e.g.) managing course loads, cognitive loads.

Although there is research dealing with writing strategies, most of it addresses identification of writing strategies. The research has not gone far enough to provide information as to how, when, and in what circumstances these strategies are used. This

study will look at the writers' strategies that facilitate their content generating and planning during writing.

2.5 Differences in L_1 and L_2 writing.

In the last decade researchers have been investigating the writing process in L_2 learners. Recent research regarding content generating and planning processes in L_1 and L_2 is discussed below.

2.5.1 Content-generating in L_1 and L_2 writing

Silva (1993) conducted empirical research to examine L_1 and L_2 writing. The subjects involved in his research came from a variety of backgrounds. At least 27 different L_1 were represented. The subjects were undergraduate college students who had advanced levels of English proficiency and exhibited a wide range of levels of writing ability. Silva (1993) points out that his research showed that writers asked to perform in L_1 and L_2 devoted more attention to generating material in L_2 than in L_1 and found content generation in L_2 more difficult and less successful. Much of the generated materials in L_2 was not used in their written text (Silva, 1993, p.661).

Friedlander (1990) studied 28 Chinese-speaking subjects to determine the effects of a first language on writing in English as a second language. The subjects were university students. As in Silva's study (1993), Friedlander's subjects were not tested for writing ability but they are described as "more advanced users of English" (p. 112). His results demonstrated that "language appears to constrain writers only in certain ways while they

are writing" (p.117). If, for content generating and planning, the writers use the language in which they acquired the topic or the subject, their writing is enhanced. Thus, if writing in L_2 about L_1 topic, the writers benefit by producing a plan in L_1 then using the plan to generate their L_2 text. When writing in L_1 about a L_2 topic, L_2 has a similar effect as in the preceding situation: generating and planning should be done in L_2.

2.5.2 Planning in L_1 and L_2 writing

Silva (1993) found that L_2 writers did less planning, at the global and local levels. Global level (or high level as per Haas), means the writer is dealing with the topic area from a variety of perspectives. Local level (or low level as per Haas), means the writer is dealing with his/her syntactic and lexical options in the context of his/her own written text. Friedlander (1990) studied planning in writing by asking 28 Chinese-speaking subjects at Carnegie Melon University to respond to two letters by generating written plans. His hypothesis was: "ESL writers are able to plan more effectively and produce texts with better content when they are able to plan in the language related to the acquisition of topic-area knowledge"(p118). The results of his study supported the hypothesis in that ESL writers were able to plan more effectively and write texts with better content when they used the language of the topic knowledge to plan their responses. Jones and Tetroe (1987) analyzed protocols to study the L_1 and L_2 planning behaviours of six Spanish-speaking L_2 writers, all of whom were in a 9-month ESL intensive program preparing for graduate studies. Their study focus was on the interaction between proficiency in the second language and the writing performance ability. The research findings are as follows: first language skills transfer to the second language; second language proficiency affects

the quality of the text but "it appears to have little role in constraining the planning process" (Jones and Tetroe, 1987 p.55). Jones and Tetroe, (1987) state that "Proficiency did seem to constrain the effectiveness of the process and reduce the quantity, though not quality, of planning" (p.55). They conclude by saying that the quality not quantity of planning transfers from L_1 to L_2.

2.5.3 Organizing and Goal Setting

Organizing and goal setting are two subprocesses of planning. Silva (1993) reports that L_2 writers did less goal setting, global and local, and had more difficulty achieving these goals. L_2 writers appeared to have difficulty organizing generated material (the same writers did not have this problem in L_1).

According to Jones and Tetroe (1987), the subjects had difficulties in setting goals which constrained their production. Low language proficiency appeared to constrain the effectiveness of the process of planning in quantity but not quality.

2.5.4 Overall effectiveness L_1 and L_2 writing

Silva (1993) states that, in general, adult L_2 writing was less effective than L_1 writing. In terms of lower level concerns L_2 writing was stylistically different and simpler in structure. L_2 revision seemed to focus more on grammar than making changes on the basis of what sounds good. According to Jones and Tetroe (1987) low language proficiency seemed to constrain the effectiveness of the process of planning, as to the quantity not quality of planning. Friedlander's (1990) data showed that writers in his study were able to access

more information when "working in their first language on a first language topic" (Friedlander, 1990, p.124).

Matsumoto (1995) interviewed four Japanese university professors on their processes and strategies for writing a research paper in English as EFL (English Foreign Language). She found that professional EFL writers use strategies similar to those used by skilled native English writers and proficient ESL writers. Her results show that the writers (university professors) did not rely on their L_1 in writing L_2, and moreover they perceived their L_2 writing process as "virtually equivalent to their L_1 counterpart" (p. 17). Matsumoto (1995) suggests that L_1 writing strategies transfer to L_2 writing.

Berman (1994) found in researching 126 secondary school EFL students that "many learners transfer writing skills between languages, and their success in doing so is assisted by the grammatical proficiency in the target language" (p. 29).

2.6 Possible explanations for the L_1 and L_2 differences

Silva does give reasons for the differences in L_1 and L_2 occuring in his studies. A difficulty in planning in L_2 concerns the switching from transcribing (producing written text) to content generating. The writers generate a lot of material in L_2 but are not using it (Silva, 1993). Other researchers (Jones and Tetroe, 1987; Matsumoto, 1995; Berman, 1994) do not support the notion that L_1 and L_2 writing processes are different; rather they attribute the differences to factors impacting on the effectiveness of the writing process. For example, Jones and Tetroe (1987) support the transfer of first-language skills to the

second language implying that composing processes in L_1 and L_2 are similar but second-language proficiency affects the quality of the text produced. L_2 proficiency, however, has a smaller role in constraining the planning process. Although they conclude that it appears that their subjects did less planning in English (L_2), "they worked at the same level of abstraction in both languages" (Jones and Tetroe, 1990, p.56). Jones and Tetroe (1987) found that low proficiency seems to constrain the effectiveness of the writing process and to reduce the quantity, but not quality of planning (p. 55). The writers generate a lot of content and some of it does not fit the topic, consequently they do not use it. As previously mentioned, the subjects in the reported studies do not possess the high proficiency levels of the subjects in this study.

Flower and Hayes (1980) described writing as "the act of juggling a number of simultaneous constraints" such as: demand for integrated knowledge, linguistic conventions of written text, and the rhetorical problem itself. All of the three constraints may be affecting the composing process of L_2 writers more than L_1 writers. L_2 writers coming from another language system may lack the appropriate schemata for the writing task because of language differences (Kaplan, 1966). Schemata in this context refers to the writer's background knowledge of the content or discourse.

2.7 Summary

The review of the literature covered studies dealing with early research in writing (1970's to 1990's) pertaining to cognitive processes. Writing models supported by current research

are explained. Moreover writing strategies, the research on differences in L_1 and L_2 writing, and possible explanations for the L_1 and L_2 differences are given.

Since the subjects of this study are proficient bilingual writers, the researcher described the knowledge transforming model of Bereiter and Scardamalia's 1987 approach in greater depth. Knowledge transforming model is the most suitable for that type of writer. In addition Haas' (1989) categories are explained as they will be used to explain in detail the planning process during writing. Differences in L_1 and L_2 were discussed followed by the explanations of these differences. The methodology for this study will be discussed in the next chapter.

CHAPTER III

3. METHODOLOGY

3.1 Introduction

In order to examine the differences in content generating and planning of adult L_1 and L_2 proficient writers, the researcher conducted a qualitative study. Qualitative data is usually (Miles and Huberman, 1994) "in the form of words rather than numbers... With qualitative data one can preserve chronological flow" (p.1). According to Miles and Huberman qualitative research can be described (p.6 and 7) in the following features:

a) the research is conducted through an intense and/or prolonged contact with a field or life situation.

b) the researcher's role is to gain a holistic overview.

c) most analysis is done with words (words are based on observation, interviews, or documents).

d) the researcher is essentially the main "measurement device" in the study. Relatively little standardized instrumentation is used.

e) many interpretations of this material are possible.

f) data are not immediately accessible for analysis but have to be encoded.

To further explain the term "qualitative research", Strauss and Corbin (1990) define it as "any kind of research that produces findings not arrived at by means of statistical procedures....some of the data may be quantified as with census data but the analysis itself is a qualitative one." (p. 17). Can qualitative and quantitative methods be combined?

Strauss and Corbin (1990) say "yes" (p. 18). They point out that a researcher "might use qualitative to illustrate or clarify quantitatively derived findings;... or, use some form of quantitative data to partially validate one's qualitative analysis." (p. 19). This study includes quantitative tables done in percentages to illustrate trends in processes or strategies in writing between individuals and groups.

The characteristics of this study are as follows: data collection included information from interviews, think-aloud protocols, and researcher's observation during writing sessions. This type of data was not immediately accessible for analysis and had to be encoded for analysis. Transcribed think-aloud sessions and products were sectioned into words or utterances that represented the various generating or planning characteristics. These in turn were converted into numbers and counted, then converted into percentages of time that the attention was given to the particular process.

Another important characteristic of this study was its exploratory focus. According to Vogt (1993, p.87) "exploratory research... looks for patterns, ideas, or hypotheses rather than research that tries to test or confirm hypotheses." The data gathered during interviews, think-aloud protocols, and written products were analyzed in an attempt to search for patterns, ideas, or hypotheses. This study also resembles the case-study approach as "gathering and analyzing data about an individual example as a way of studying a broader phenomenon" (Vogt, 1993, p.30); Johnson, D. (1992, p.33) states that "case studies... now play an increasingly important role in L_2 research..."

Triangulation is a tactic of "using more than one method to study the same thing" (Vogt, 1993, p.234) in order to test or confirm the findings. Miles and Huberman (1994) list five different approaches of triangulation (p.267): " by data source (persons, times, places), by method (observation, interview document), by researcher (investigator A, B, etc.), by theory, by data type (qualitative text, recordings, quantitative)". For triangulating purposes, the researcher chose triangulating by method (observation , interview, and think-aloud), as this approach was the only one possible for this study.

This study was guided by one general research question: Are there differences between L_1 and L_2 writing in content generating and planning? More specifically the following are research questions addressing the general question.

1. Do the content generating and planning profiles of L_1 and L_2 vary cross-linguistically (Spanish/English) or (first/second language) from group to group in proficient bilingual writers?
2. What writing strategies are used in facilitating content generating and planning during writing by proficient bilingual writers?

This chapter begins with a summary of the pilot study and a description of the selection of participants for this study, followed by data collecting procedures including think-aloud protocols, interviews, and observations.

The pilot study was conducted prior to this study to try out research instruments, procedure and materials. The following section will describe the pilot study.

3.2 Pilot Study

The study was conducted in winter 1995 to explore L_1 and L_2 content generating and planning in writing, using a qualitative approach. Two proficient writers in English were used - one was a proficient bilingual writer (English/Polish), the other unilingual English proficient writer. Both were teachers of English and both did extremely well in their written assignments. One was a native speaker and the other was a non-native speaker of English (A teacher of English in a Canadian School). Think aloud protocols were used as a means to explore the cognitive processes, such as content generating and planning during writing. A profile for L_1 and L_2 content generating and planning in composing processes was developed.

The subjects were asked to think aloud while writing an essay for the topic given in English. The topic was selected after the interview with both subjects. The English/Polish speaker did the writing session twice; once in English (her L_2) and then on a different topic in Polish (her L_1). Polish was chosen because the researcher is a native speaker of Polish; in fact, she is a proficient bilingual writer in English/Polish. Thus the pilot study provided a wonderful opportunity for the researcher to experiment with the instruments, procedure, and materials.

The following is an analysis of the think-aloud protocols in the pilot study. For the purpose of this analysis, three transcribed pages were used for each participant: first page or the beginning of the writing session, third page or the beginning of the second hour of composing, and the last page or the ending of the writing session: each utterance was

colour-coded and all the utterances were tallied by colours. There were eight different categories that emerged from the data. The researcher chose only to do three pages of transcribed data because the purpose of the pilot study was not necessarily to reach conclusions (and develop a bias) before the thesis study but to get prepared adequately for the research.

Table 1 Pilot Study

Participants	L_1 (English) A	L_2 (English) B	L_1 (Polish) B
generating content	39	23	39
conceptual planning	59	46	75
process planning	39	61	28
rhetorical planning	15	8	10
sequential planning	21	14	7
rereading to generate content	27	33	28
rereading to edit	1	3	2
use of another language while writing	0	23	0
Total	201	191	189

Note: number of utterances on pages 1, 3 and last page of the transcribed think-aloud protocols.

The participant who wrote in both English and Polish indicated differences in L_1 and L_2 content generating. This result was evident in data analysis. It appeared that she did not transfer some of her strategies from her L_1 to L_2. She was asked about the difference and she replied that she made an effort to keep the two languages apart by trying not to think in Polish when writing English, although she used Polish during her L_2 session (table 1, last item).

Also, the results of the pilot study seemed to indicate that the L_2 writer did less planning at the conceptual level (conceptual level as defined by Haas, 1989). Other studies (Bereiter and Scardamalia, 1987; Silva, 1993) found similar trends. One of the factors contributing to the decrease in conceptual planning may be attention to the lower level concerns such as vocabulary or other linguistic data, such as syntax, morphology (Haas, 1989). The table indicates higher attention to the process planning.

For the differences in planning, a very crucial factor may be related to the following. Since planning requires the writer to choose a particular item from several alternatives, the L_2 writer will be at a disadvantage not possessing "a complete inventory of possible alternatives, and not recognizing the sociolinguistic constraints on those alternatives, and not recognizing what sorts of constraints a choice imposes on the text which follows" (Kaplan, 1966, p. 11). For example, a writer may want to choose a particular discourse type (persuasive) but does not know the structure of it so s/he may choose a similar type (opinion).

Linguistic conventions (an accepted practice in written language) of written text differ from language to language (Kaplan, 1966). An L_2 writer may not have the required repertoire. Moreover, the rhetorical problem itself may not provide the L_2 writer with the necessary knowledge to effectively switch back to production. Rhetorical planning appeared to be given more attention in L_1 than L_2. The writer needs to go beyond text features (Flower, 1994); s/he needs to know "conventions about what ideas matter, how to frame an argument, and what readers expect and need" (p. 22). Flower (1994) maintains

that "the person who is an expert or insider in one discourse community is likely to be a novice or outsider in another", (p. 9). She stresses that the writer ought to have strategic knowledge or a plan for understanding the conventions of that discourse and how the conventions are used to carry out one's intentions, (p. 9).

It was difficult to establish the trend in the sequential planning. Perhaps the difficulty occurred in the encoding process in that it was very unclear whether the utterances related to sequential planning or other types of planning.

As a result of the pilot study the methodology was adjusted, taking some of the factors into consideration. The adjustments included a decision not to analyze sequential planning. It was too difficult to differentiate it from the other three which were conceptual, process, rhetorical. Other categories that emerged from the analysis were: talking to the experimenter as a means of content generating and planning, blank-page syndrome or pauses representing a block in content-generating and planning, use of L_1 in L_2 writing or use of L_2 in L_1 writing. It was decided that two hours were adequate per session since the writers felt that they had enough time to produce a text and any more time would make them less productive.

3.3 Main Study

3.3.1 Participants

Eight bilingual participants (English/Spanish) took part in this study. Four participants were native speakers of Spanish born either in Mexico, Colombia, Cuba, or Chile. The remaining four participants, two born in Canada and two in South America, were native speakers of English who studied Spanish at the university level; three of the four visited frequently or lived in Spanish speaking Central American countries. They used Spanish, as much as English, while communicating with their spouses or during their work assignments in Spanish speaking countries.

Table 2. Participants' Information

Participant	Gender	Age	Occupation	Origin	Married Cross Culturally
* Kevin	Male	20-30	Language Teacher	Canadian	Yes
Eduardo		30-40	Writer, Language Teacher	Cuban	No
Jorge		40-50	Writer, Language Teacher	Chilean	No
Cathy	Female	20-30	University Student	Canadian	No
Maria		20-30	Language Teacher	Colombian	No
Paula		20-30	University Professor	Mexican	Yes
Mary		30-40	University Student	Canadian	No
Kristin		30-40	Language Teacher	Canadian	Yes

*Not real names

With regard to age and gender, four were between 20 to 30 years old, three were 30-40 years old, one was 40-50 years old; they included three men and five women. With regard to occupation and vocational training, all of the participants taught or tutored a language at some time, usually their first, or first and second. Among the participants, there was a fiction writer who published his short stories in English and Spanish, and a university professor who published her academic articles in Social Sciences Journals in both Spanish

and English. Three of the participants married cross-culturally in that their spouse spoke their second language. This situation helped them to be more active in their second language and culture.

3.3.2 Selection of Participants

The participants' names were suggested by language teachers at Algonquin College[1] and by professors at the University of Ottawa. The researcher explained to each participant the requirements: a) a degree in Spanish or English (their second language), b) a writing sample (scoring 9 - British Council New Profile - Appendix A) to be written before the study. The time frame given for this was about 30 minutes. Band 9 for ELTS test gives the following:

9	The writing displays an ability to communicate in a way which gives the reader full satisfaction. It displays a completely logical organizational structure which enables the message to be followed effortlessly. Relevant arguments are presented in an interesting way, with main ideas prominently and clearly stated, with completely effective supporting material; arguments are effectively related to the writer's experience or views. There are no errors of vocabulary, spelling, punctuation or grammar and the writing shows an ability to manipulate the linguistic systems with complete appropriacy.

[1]Algonquin College is a post-secondary institution where several foreign languages are taught in the Continuing Education Department. Spanish teachers recommended some of this study participants.

ELTS stands for English Language Testing Service. British Council's testers prepared this test for those who enter university level education in Britain. (Hughes, 1990). Band 9 is the highest score of this test.

The researcher administered the test but the tests were scored by two evaluators: two for the English test and two for the Spanish test. In order for the test to be accepted both evaluators had to agree on the score of Band 9. A sample test is included in appendix B written by Jorge. The topic of the writing test was "Describe a personal learning experience that you found rewarding." The participant was given 30 to 60 minutes to write the response to the above topic in his/her L_2. The researcher found that this particular topic did not require specific knowledge in a cross-cultural context. It dealt with personal experiences and was chosen because when used in the past with ESL writers it proved to be successful. Nine participants wrote the test, eight were chosen for the study, the ninth subject was rejected because the score was below band 9.

The participants who had a degree in Spanish or English as L_2, studied or worked in their L_2, and scored 9 on their written sample (Appendix B) were interviewed (Appendix C for questions). The interview questions were constructed to get some information or answers for the research questions so that the data could be triangulated. The interviews lasted for 30 to 60 minutes; they were not timed. Following the writing session, a post-interview took place; its length depended on whether the researcher had any questions following the observation. While taping the interviews, the researcher made notes and asked additional questions to clarify the answers.

3.3.3 Procedure: Expectancies of the Participants

Each participant was asked to perform a number of tasks in the following order.

a. Participate in an interview with the researcher. The purpose of the interview was to get a general idea about how the subjects generate content and plan during writing (Appendix C #6) so that the research questions were addressed. Using prepared questions (Appendix C), a participant was asked: What are some of the difficulties you experience when you write in your first language? In your second language? In addition, the participants were asked about their interests in writing in order to develop the topics for the writing sessions. The interviews were conducted in English.

b. Write an expository essay on a provided topic in your L_1 (Appendix E). The topic was pre-determined using some interview data as to the general interests of the participants and information from two Spanish language and cultural informers (Spanish professors). Also the pilot study's topics were considered. While writing, the participants verbalized (think-aloud protocols) their thoughts into the microphone. The purpose of the think-aloud protocols was to reveal what information was attended to at different stages of composition. The time frame was 2 hours maximum.

c. Write an essay on a provided topic in the participants' second language. A similar procedure was followed as in b. above. This writing was done in a separate session. As above, this session was given 2 hours maximum.

d. Participate in an interview, after the writing session. The purpose of this interview was to address any questions regarding unexplained events during the writing session.

3.3.4 Interview Questions and Observations Notes

Prepared interview questions are in Appendix C. When asked if they wrote in English and Spanish, all the participants replied they wrote in both languages regularly. They used both languages in the workplace and social contexts. Depending on the occasion, they would write a business letter or report in either language; also they would write personal letters to friends and relatives in either language. When asked what were some of the difficulties when writing in either L_1 or L_2, they gave replies such as the following: some participants worried about their grammar in second language, some worried about spelling if English was their second language. In order to overcome these difficulties they said they used dictionaries and spent more time revising their writing. During observation this aspect was confirmed. If the style was problematic they produced more drafts and used a lot of logic. Using correct vocabulary helped with their style.

Table 3. Difficulties in writing L_1 and L_2 (as reported during interviews)

L_1 English
- developing a style in formal writing
- mood, being creative
- generating ideas

L_1 Spanish
- developing an appropriate style
- proper terminology/vocabulary
- word order - style

L_2 English
- beginning the essay
- grammar
- punctuation
- different rhetorical patterns i.e. scientific writing

L_2 Spanish
- grammar
- grammar being more demanding
- easier to write than English

For one of the participants generating ideas was difficult. To overcome this block, she would sit and wait arranging things on the desk until an idea came up. Another individual was quite concerned about having inspiration or being in a proper mood. To bring this on,

she would brainstorm and free write. The professional writer complained about experiencing blank page syndrome. He would make lists and free write to overcome it; later he would discard the lists and free writing. Playing music, was a strategy used to overcome anxiety during writing by at least two people. In fact, two of the participants, Jorge and Cathy listened to music while doing their think-aloud protocols. All participants were given the same opportunity to use any strategies in writing that they normally use. No disturbance resulted during think-aloud protocols when music was played.

Two of the participants taught writing in their language classes; both taught the basic level. All of the participants took courses in writing in their secondary education and in their first language. Most of them were told by their teachers or peers or both they were good writers. The professional (fiction) writer felt that he was provided with a special talent and that he was supposed to share it with others.

When asked what they enjoyed about writing in general or in both languages, the responses were as follows: "I enjoy generating content; it makes me think about a situation (Cathy); I like being creative (Kevin); I like writing my thoughts and opinions (Paula); I like to see myself changing ideas (Eduardo); I like to see my thoughts on paper (Kristin); I like writing - the whole process (Jorge); I like to read what I write (Maria); I enjoy finding the right word (Mary)." (Participants words).

When asked what they least enjoy about writing in general or in both languages, they gave the following: editing (Maria), the length of time it takes to write anything (Cathy), formal

writing (Kristin), writing an introduction (Cathy), having to write about something uninteresting (Mary), punctuation (Kevin), writing when the topic is unclear (Jorge), writing when experiencing a blank-page syndrome (Cathy).

The participants were asked if they read in both languages. All replied that they read in Spanish and English. Their readings included novels, magazines, newspapers, textbooks, art books, and cookbooks. Table 4 would show whether both groups (NES and NSS) possessed similar background knowledge.

Table 4. Reading Interests of the Participants

Native English Speakers (NES)	Native Spanish Speakers (NSS)
- novels, short stories	- novels, short stories
- magazines, newspapers	- magazines, newspapers
- textbooks, articles	- textbooks, articles
- poetry	- professional journals
	- business books

The observation took place during think-aloud protocols writing session. While the participants wrote and verbalized their thoughts, the researcher stayed in the room making notes on the participants' behaviours (participant generating content or rereading the text so far produced). Appendix D provides a sample of notes taken. The researcher planned to observe and listen for information related to the research questions. As mentioned in the previous sections, triangulation was to be used to confirm the findings. Observation and interview documents were going to be examined to confirm the data from think-aloud protocols. In addition, written products were analyzed as well. Since the study was

exploratory, the researcher listened to and watched for any behaviour relevant to the study, such as use of dictionaries by the participants, pausing, erasing written words.

3.3.5 Writing Topics

The researcher explored the writing topics with the subjects of the pilot study during the pre-test interview. She asked whether they knew about the differences between the two cultures and the two languages. The two topics shown in Appendix E would not pose any difficulties for subjects in regard to background knowledge, so that all subjects had an equal chance in responding to the topics. The subjects were familiar with the topics for L_1 (comparing the two cultures; Spanish/English) and L_2 (comparing two languages). All of the subjects worked and lived in both cultures for some time and taught their first language or both languages. During the interviews they indicated that they read in both languages. The order of the writing tasks was the same for all subjects: L_1 session first then the next day L_2 session. There was no particular reason for this order.

3.3.6 Think-Aloud Procedures

The choice of using think-aloud protocols and interviews was guided by Bereiter and Scardamalia (1987); they suggest two main ways to study writer's thoughts while composing: clinical-experimental interview as described by Piaget (1929) and think-aloud procedure by Ericsson and Simon (1980). According to Bereiter and Scardamalia (1987) both interviews and think-aloud protocols display the products of cognitive activities rather than the cognitive activity itself (p. 44). Thoughts while composing "should be taken as data that the investigator uses, often in conjunction with other data" (Bereiter and Scardamalia, 1987,

p. 43). In the clinical-experimental interview, the researcher interacts with the writer and tries to structure a task in which such interaction will be natural. The researcher tries to develop the exchange in such a way that all the thoughts come from the writer, not from the researcher.

A protocol is a description of the activities, ordered in time, which a participant engages in while performing a task (Hayes and Flower, 1980b). In a verbal, or think-aloud protocol, participants are asked to say aloud everything they think and everything that occurs to them while performing the task. The participants were trained in English before the first session, doing think-aloud for about 15 minutes. The researcher did the training; first, the researcher demonstrated using herself and the topic "What I did during my last holidays", then each participant tried for 15 minutes in English. Afterwards, participants were given the study topic and each person was instructed to think aloud in either language he/she was comfortable. Since all of the participants were bilingual in Spanish/English, they were able to be trained in one of the languages to avoid having more than one trainer. The researcher observed the process and only interrupted the writer to urge him or her to speak to the microphone. "In collecting think-aloud protocols, the investigator interacts little with the writer; the investigator may not even be present" (Bereiter and Scardamalia, 1987, p. 42). After completing the two data sessions, each participant was asked to translate his/her own Spanish think-aloud protocol and was paid for translation. They were all willing and more than capable of doing it. The think-aloud protocols were the participants' own thoughts and, they were aware what they were saying. The data collection was done by the researcher who is not fluent in Spanish. The researcher did the analysis while examining both the original

utterances and translations. (Appendix F gives a sample of transcribed think-aloud session). The participants were allowed to use bilingual dictionaries at all times.

3.3.7 Categories used to analyze the data.

Think-aloud sessions were taped and transcribed. The transcribed data was colour coded according to what the participant was saying (Appendix F). If the participant was saying: "Pronunciation...in Spanish...is more consistent" the statement was classified as content generating. "I will deal with this idea later" - the statement was classified as process planning. If the participant was saying "How do I develop this idea" - the statement was classified as conceptual planning. The researcher grouped the data in categories by examining the data and comparing them to the different types of generating and planning described in the review of literature. These categories comprise both content generating and planning processes and writing strategies that emerged during the study.

The participants' statements were categorized into the following:

Processes:

- generating content (by rereading)
- generating content (other than rereading)
- conceptual planning
- process planning
- rhetorical planning

Strategies:

- rereading to edit
- use of L_1 while writing L_2
- use of L_2 while writing L_1
- pausing
- talking to the experimenter

The above categories were developed after the data were collected.

3.4 Summary

This chapter began with an introduction describing the research approach used in this study. A short report followed, providing highlights of the pilot study conducted in 1995. The pilot was done to test the procedures and instruments. The next sections give a detailed description in regard to the information about the participants, how they were selected and what the expectancies were of them. In addition, think-aloud sessions along with the research observation and writing topics were described next. Lastly, categories to analyze the data were given.

CHAPTER IV

4. DATA ANALYSIS AND RESULTS

4.1 Introduction

Interviews, transcribed think-aloud protocols, researcher's observation notes and written products were analyzed carefully for each participant to answer the two research questions. These data types were used for triangulation purposes to account for the validity of the data. Data analysis and results for each research question are reported below.

4.2 Research Question #1

Content Generating and Planning Profiles.

Results for Question #1 will be reported under four headings; 1) researcher's observations 2) think-aloud protocols 3) interviews 4) written products. In each subsection, results for L_1 will be presented first then results for L_2.

4.2.1 Researcher's Observation (During Think-Aloud Sessions)

Data gathered via observation, during the writing sessions, are presented first for Spanish native speakers then for English.

Maria (L_1 Spanish) (Colombian)

L_1 results

She reread a lot and she did a great deal of erasing. Doubts were experienced in regard to certain words: "here I remember the word in English...well now I have it in Spanish" (translation from Spanish). In some cases she knew the word in English (L_2) and not in Spanish (L_1). A few times she got off the topic; then she came back to it by saying "OK I start here again" (translated from Spanish). She did not use a dictionary and she did not start with an outline. She used L_2 twice in her L_1 session, for vocabulary. Maria wrote with a pencil so that she could erase any word she wanted to change. There was no need to tell her to verbalize as she verbalized almost automatically. Tone of voice was very dynamic. She produced one draft.

L_2 results

A few times she got off the topic and when she realized it, she said, "what?" and then reread the topic. When developing ideas, she was not always sure what to do and she would ask me to explain: "Do I discuss difficulties in the two languages?" As in L1, she did not use a dictionary and did not develop an outline. She used L_1 in L_2 session eight times - all with vocabulary. Her tone of voice was very dynamic. She produced two drafts. My observation notes indicate that she generated content by rereading.

Eduardo (L_1 Spanish) (Cuban)

L_1 results

This participant spent some time talking to the researcher to clarify the topic. Some of the questions regarding the topic were to develop his main idea. For example, "Do I compare the cultures?" (observation notes). In L_1 he presented himself with challenges by asking himself questions about the topic and how he was going to present his ideas. "How can I say this?" he asked himself. He did not use a dictionary. No outline was developed. He did not use L_2 in L_1. Tone of voice was very lively. He verbalized throughout the session without being reminded to do so. One draft was produced.

L_2 results

He used a great deal of Spanish in writing on his English (L_2) topic and appeared a little intimidated speaking in English while writing; even though, he was allowed to do it in either language. In L_2 generating and planning he used his language (L_1 Spanish) almost exclusively. As in L_1, he did not use a dictionary. There was no outline; he just started writing. He did not need to be reminded to verbalize. His voice was very lively. He produced one draft.

Jorge (L_1 Spanish) (Chilean)

L_1 results

This was the professional writer, who felt quite comfortable during the sessions. He was the only one who asked if he could use a computer and he did. There was music in the background. His speaking during think-aloud was quite intense. There was a lot of expression in his think-aloud (he would laugh) - the meaning was important to him in that

he wanted to be clear whether he understood everything; several times he spoke to the researcher to clarify the topic, always making sure he was clear. He did not use a dictionary and he did not make an outline. He spoke to the experimenter 31 times during his L_1 session. He did not use L_2 in his L_1 session. He produced one draft.

L_2 results

When dealing with the topic in L_2 he was quite specific; he chose pronunciation only to compare the two languages; using examples he compared L_1 and L_2. He used the spell-check on the computer but no outline was developed; he just started writing. Tone of voice was very intense as he started comparing Spanish and English. He talked to the experimenter 8 times.

Paula (L_1 Spanish) (Mexican)

L_1 results

After a few minutes of uncertainty, she felt quite comfortable. This participant was a university professor who published in professional journals. She seemed to generate all the time during her think-aloud protocols. She did not use a dictionary. She did not develop an outline but just started writing. While generating, she spoke to the experimenter 15 times. For example: "Do I consider myths?" Tone of voice was low and monotonous. She produced one draft.

L_2 results

She was quite specific in her L_2 topic, using concrete words to describe actions such as "I started learning English when I was nine." (Observation data). She appeared very focused but verbalized mostly the content written on her page. In her L_2, she seemed very

comfortable, but her tone of voice was similar to that in L_1. She did not use a dictionary and did not develop an outline. She produced one draft.

Kristin (L_1 English) (Canadian)

L_1 results

She seemed a little anxious as her voice was shaking and she would stop verbalizing. I had to remind her to speak to the microphone. Although she seemed to verbalize a lot, her composition was quite short - only one draft in L_1 session when the papers were collected. She appeared to be writing what she was saying. She did not use any resources such as dictionaries and made no changes. There was no outline. She did not use L_2 in her L_1 session. Her tone of voice was very quiet - difficult to hear.

L_2 results

She seemed to verbalize a lot in that she verbalized the content of the product. For example, "Mexican people have a very strong sense of family..." is the content in her essay. She did not use any dictionaries and no outlines were made. She did not use her L_1 in L_2. Her tone of voice was quiet. One draft was produced. My observation notes indicate that she generated content by rereading.

Cathy (L_1 English) (Canadian)

L_1 results

A university graduate in Spanish, she found the first topic (L_1) quite challenging and spent a great deal of time talking to the experimenter trying to clarify the topic. She spoke to me 25 times. She seemed to be dynamic (dynamic would mean fast pace here) in her tone

of voice, verbalizing a lot and experiencing blank-idea syndrome, according to her responses "I can't come up with any ideas" (observation data). She developed an outline while brainstorming for ideas. She did not use a dictionary. This participant, like the professional writer, would focus on a particular aspect of the topic. She produced two drafts.

L_2 results

In her L_2 think-aloud session, she generated much of the content in English and translated it into Spanish (her L_2). Even though she said the topic was easier and her composition was flowing better than L_1 composition, she experienced a blank-idea syndrome from time to time. When she stopped and stared in space, the researcher asked what she was doing and she replied that she was not thinking at that point or that no ideas were coming to her mind. Planning was evident by the two written drafts she produced, the second being her final draft/copy. Also, Cathy had an outline developed before she started writing.

Mary (L_1 English) (Canadian)

L_1 results

This participant had the least difficulty composing in her L_1 (English). There was frequent use of English dictionaries to find better words. She started writing without an outline. She did need to be reminded about verbalization; although she spoke to the experimenter about 20 times clarifying her ideas.

L_2 results

She appeared to be tired or burned out while composing in L_2 as her think aloud session was very short. She made no outline. As in L_1 she used a bilingual dictionary for vocabulary. Her tone of voice indicated she was not interested in writing (there was lack of enthusiasm). When she finished her L_2 session, she said to me "Yes! I am done with that!" During her L_2 session she spoke to the experimenter 11 times clarifying some of her ideas. She did not use L_1 in her L_2 session. She produced one draft.

Kevin (L_1 English) (Canadian)

L_1 results

This participant had a very long session for his L_1 think-aloud. He appeared to enjoy the session, both sessions in fact (a lot of enthusiasm in his voice). His ideas came smoothly. He did not use other sources such as bilingual dictionaries to help him with words. He kept talking to himself. His tone of voice was lively and he did not seem to be intimidated while talking to the microphone. He did not develop an outline and he did not use L2 in his L1 session. He spoke to the experimenter about 6 times clarifying his topic but did not need any reminders to verbalize.

L_2 results

His L_2 session was done in an identical manner, except he spoke in Spanish. During the session he only spoke to the experimenter once to clarify the topic.

4.2.2 Data From Think-Aloud Protocols

The time given for each essay was two hours or less. The researcher instructed the participants to stop when they felt satisfied with their essay; however, she also instructed them not to go over two hours and none did.

4.2.2.1 Generating Content and Planning by Individual Subjects

Maria (L_1 Spanish) (Columbian)

L_1

In her think aloud, she reread the topic several times and talked about certain actions she would take such as writing her introduction first: "OK. I start with an introduction" (p.1, transcribed data). While thinking aloud she was very active coming up with her ideas and deciding how she would write: "I want to express that these values are so important" (p.4, l.8 transcribed data) or "Well, I am going to read the last idea again because I want to continue it "(p.5 last line, transcribed data). When she wanted to change her ideas, she would erase the previous one and insert a new idea. There were several examples of process planning "Ok I am going to start reading again." (p.2) Or she revised while generating and planning "I will erase this; I don't like it." (p.3) She assessed her own writing "this is totally connected; this is better" (p.6) (while changing her ideas). She would give reasons for her decisions "I am going to read because when I read I can see whether the idea sounds good or not and if it is organized " (p.9).

L_2

She did exactly the same things in generating ideas and planning in L_2 as she did in L_1. First she reread the topic to get some ideas; then she talked about her introductory

paragraph. She was active in that she gave herself commands: "I am going to start all over again" (p.2, l.22, transcribed data) or "I'm writing down how my point.....". (p.3, l.12, transcribed data). She revised while writing "I am going to change the word" or "I am thinking that the word "process" is repeated twice. So I have to change it" (p.1) She assessed writing "again I see these words and I don't like them".

The L_1 citations from the think-aloud protocols are English translations of the Spanish data. Maria's focus in both L_1 and L_2 was on planning.

Eduardo (L_1 Spanish) (Cuban)

L_1

This subject verbalized thoughts, when generating ideas, and some of his decisions made during the writing session. For example, he said at one point "Let's eliminate the word country ..... more about people" or "Let's present this maybe in a way more..... elegant and personal" (p.1, last paragraph, transcribed data). He revised during writing. "I believe I repeated few times country, country, culture" and "possibly I should put a period." (P.1 middle paragraph).

L_2

While writing on L_2 topic, the subject used both Spanish and English in his think aloud session. He often started generating ideas in English and then switched into Spanish; ie. "It is obvious that English is... en Espanol palabras....." (transcribed data). The subjects were given instructions to do think aloud session in either Spanish or English - whatever came naturally. His utterances in the transcribed protocol were similar in both L_1 and L_2

session: He also tells what he is going to do; for example, "I think I'll start talking about some kind....." (P.1, l .3 transcribed data), "let's talk about one example". (P.2).

Eduardo's think-aloud transcription contained many utterances showing process planning in L_1 and L_2.

Jorge (L_1 Spanish) (Chilean)

L_1

He generated a lot of ideas. He verbalized his thoughts easily; for example, "I'm stuck on one word here, I don't seem to be able to finish.....this sentence" (p.1, last line, transcribed data). " I am gonna do a brief revision of it" (p.3, beginning paragraph).

L_2

There were similar utterances to L_1 utterances in this transcribed data. He gives himself instructions " I will copy this" (p.1, last paragraph) or "I will do two or three things" (p.1, last paragraph), "I will skip" (p.2 last paragraph).

Jorge made many utterances indicating process planning in L_1 and L_2.

Paula (L_1 Spanish) (Mexican)

L_1

This subject started generating ideas immediately after reading the topic. Her think aloud transcription appears to be very similar to the product. She said what she wrote. She expressed her thoughts aloud continuously but they resembled the product: "It is said the

Mexicans are warm" (transcribed data) perhaps she was unable to verbalise everything. She was translating from English to Spanish, "I don't know how to translate 'assumptions'".

L_2

Her L_2 utterances in transcribed data are similar to L_1 utterances in that she generated ideas but did not explain them: "When he speaks you can see his mental process" (transcribed data). Only at the end of the session she says what she will do next "I am going to read for last editing" (p.2, last paragraph).

Paula's focus was mainly on generating ideas.

Kristin (L_1 English) (Canadian)

L_1

This subject started generating ideas immediately: "there is such a big difference between the two....(cultures)" (p.1, line 2, transcribed data). Occasionally she would ask herself a question after making a statement. "I wouldn't want to give up my Canadian identity but at the same time I do enjoy....what else? She did not say in her think aloud as to how she was going to write anything; she just generated ideas and wrote them down. She spoke to the microphone all the time during the session. All her utterances were about generated content. However, she did not verbalize how she was organizing or planning her writing.

L_2

In her L_2 (Spanish) she generated ideas only: "The Canadian culture appears to be somewhat conservative" (translated data) Rarely did she express what she was going to

write. She verbalized her sentences that she wrote. She asked herself a question after a statement. "....Italian, Spanish, French, Portuguese....These are all aren't they?" The only difference between L_1 and L_2 appeared to be the language - English and Spanish. The two taped sessions were very similar in the type of utterances that were made.

Kristin's focus in both L_1 and L_2 was on generating content.

Cathy (L_1 English) (Canadian)

L_1

This subject spent a lot of time generating ideas and talking to herself about them. She explained some of her planning; for example, "write your thesis at the top of the page" (p.2., l.22 transcribed data). She included me or spoke to me when she was generating content - "I know what you mean. Are we really individuals?" (P.1, paragraph 2, transcribed data).

L_2

She used her L_1 (English) when generating and planning her writing in L_2. English, she said, "was easier to use for generating ideas." In L_2, as in L_1, she included the researcher while generating her ideas: "Do we use subjunctives in English?" (P.3, l.3), she asked. She organized her writing; for example, "I have to do an outline...." (P.2, l.27, transcribed data).

Cathy was including the researcher while generating content.

Mary (L_1 English) (Canadian)

L_1

She started by asking herself questions. "What do I write?" (P.1, paragraph 1). She asked if she could do an outline. She verbalized some of her decision making; for example, "I'm not doing the whole society.....I'm doing what I know" (p.1, l.34, transcribed data). There is a lot of repetition of single words i.e. "In Latin America young.... young..... young..... young.... adults experience life differently" (transcribed data).

L_2

In her L_2, the subject used questions: "How do I start" (p.1, l.2) or "Can I put my personal experience here" (p.2, l.15, transcribed data). She made extra statements as in L_1 when she was not certain. "I don't know how to explain it" (p.1, paragraph 2).

Mary devoted time to conceptual planning.

Kevin (L_1 English) (Canadian)

L_1

This subject generated ideas using examples from personal experience: "for example....was here and that's someone who will never play in Mexico." (P.1, l.52, transcribed data) or "let's say Canada and.....Mexico....or Latin America.....or.....particularly with collective.....and groups....." (P.2, l.26, transcribed data). He gave himself directions such as "so I'm going to compare Canada and Mexico....." (p.2, l.38, transcribed data).

L_2

In his L_2, he also uses examples from his personal experiences "I tell Belinda (his wife who speaks Spanish) to translate for me" (p.4, l.13, transcribed data). As in L_1, so in L_2 he gives himself directions "I am going to write about Spanish speakers learning English...." (P.7, l.3, transcribed data).

Kevin focused on generating ideas using personal examples in L_1 and L_2.

Many of the above quotations were originally given in Spanish but for the purpose of this section are translated into English.

4.2.2.2 The Process used during the think-aloud verbalization

The writing process used by proficient bilingual writers in this study fits the knowledge-transforming model (Bereiter and Scardamalia, 1987) in that there is a recursive flow between various components of the model so that the knowledge is transformed. The following example demonstrates the recursive process in L_1 and L_2, Bereiter and Scardamalia's 1987 Model.

Cathy (Her beginning pages of think aloud transcription).

L_1	L_2	
Reads the topic	Reading the topic	(Problem Analysis)
"I have to read it again"	Rereading the topic	(Problem Analysis)
"I can't think in these terms"	"Okay no problem"	(Problem Analysis)
"I think Canada is unique"	"First it would definitely be gender"	(Content Knowledge)
"I think of cultural differences"	"In English we don't have genders"	(Content Knowledge)
"I can argue that as a...How do I say this?"	"I can't remember how to say this"	(Rhetorical Problem)
"Scrap that"	"I will have to look it up"	(Problem Analysis)
"history...history...Okay historical motivation"	"I always get interested in the words I look up"	(Content Problem) (Rhetorical Problem)
"Okay, back up here"	Rereads the topic	(Problem Analysis)
"Canada...with the Spanish society"	"Other people have difficulties in..."	(Content Problem)
"that doesn't make sense"	"What do you call that?"	(Rhetorical Problem)

This recursive process goes on and on. Both L_1 and L_2 think-aloud transcriptions are similar in their recursive approach as explained by Bereiter and Scardamalia's knowledge transforming model (1987). All participants dealt with problem analysis during the writing session. Then their think aloud indicated back and forth movement between content space, rhetorical space and problem analysis. For further support check section 4.2.2.1 where the writers indicate the processes they use during writing.

4.2.2.3 Attention Given to Content Generating and Planning

The results from the quantitative analysis of the data are presented in table 5 and are explained below.

Generating content in L_1 and L_2

a) L_1 Spanish and L_1 English

English speakers focused 55% of their total attention to generating content whereas Spanish speakers focused 38% of their total attention. Native English speakers paid more attention to generating content than Native Spanish speakers did.

Table 5.
Percentages of the attention paid to specific processes as indicated by the number of utterances made during think-aloud session.

		Maria (S)	Kristin (E)	Eduardo (S)	Jorge (S)	Paula (S)	Cathy (E)	Mary (E)	Kevin (E)	Average English EL_1	Average Spanish SL_1
L_1 (Spanish or English)											
1.	Generating Content (by other means)	10 +(33%)	40 +(63%)	28 +(38%)	45 +(38%)	8 +(44%)	88 +(43%)	165 +(54%)	171 } +(61%) }	55%	38%
2. 3.	Generating Content (by rereading)	55	16	17	3	24	33	7	21 }		
4.	Conceptual Planning	85 (43%)	31 (36%)	32 (27%)	19 (15%)	14 (20%)	38 (14%)	42(13%)	38 (12%)	19%	28%
5.	Process Planning	16 (8%)	1 (1%)	6 (5%)	10 (7%)	**	23 (8%)	5 (2%)	44 (14%)	6%	5%
6.	Rhetorical Planning	25 (13%)	**	27 (23%0	11 (9%0	8 (11%)	20 (7%)	31(10%)	5 (1%)	4.5%	14%
L_2 (Spanish or English)										**EL_2**	**SL_2**
1.	Generating Content (by other means)	37 +(34%)	7 +(63%)	11 +(28%)	17 +(23%)	46 +(65%)	77 +(49%)	22 +(57%)	91 +(90%)		
2. 3.	Generating Content (by rereading)	23	28	12	2	5	21	16	18	64%	37%
4.	Conceptual Planning	70 (41%)	10 (15%)	27 (32%)	43 (52%)	9 (12%)	5 (3%)	7 (10%)	6 (5%)	8%	34%
5.	Process Planning	20 (11%)	**	2 (2%)	3 (3%)	6 (8%)	14 (7%)	2 (3%)	2 (2%)	3%	6%
6.	Rhetorical Planning	16 (9%)	**	5 (6%)	6 (6%)	1 (1%)	25 (12%)	3 (4%)	2 (2%)	4.5%	5.5%

*** *No utterances found in the think-aloud transcription**

+ means item 1 and 2 are added to give percentages

The percentages given in this section are based on the number of utterances of their total attention to a particular process. The researcher could not tell whether a particular process (generating or planning) was taking place, only the attention seemed to be in that area.

b) L_2 Spanish and L_2 English

64% of English speakers' think aloud utterances was used for generating content. Spanish speakers used 37% of think-aloud utterances to generate content.

c) L_1 Spanish and L_2 English and d) L_1 English and L_2 Spanish

Spanish speakers used equal attention in both languages; English speakers used more utterances on generating in L_2 than L_1.

Conceptual Planning in L_1 and L_2

a) L_1 Spanish and L_1 English

Spanish speakers focused 28% of the number of utterances on conceptual planning in L_1. English speakers spent 19% of utterances on conceptual planning.

b) L_2 Spanish and L_2 English

In L_2, English speakers spent 8% of the utterances on conceptual planning and Spanish speakers focused 34% of the utterances.

My results show NES paid less attention to conceptual planning than NSS.

Process Planning in L_1 and L_2

a) L_1 Spanish and L_1 English

English speakers allowed 6% of the utterances on process planning, Spanish speakers 5%.

b) L_2 Spanish and L_2 English

In their second language, English speakers focused 3% of the utterances, Spanish speakers 6%.

The results indicate that both NES and NSS behave similarly with respect to process planning in L_1 and L_2.

Rhetorical Planning in L_1 and L_2

a) L_1 Spanish and L_1 English

In their first language, English speakers used 4.5% of the utterances on rhetorical planning and Spanish speakers 14%.

b) L_2 Spanish and L_2 English

In their second language, English speakers spent 4.5% of their attention on rhetorical planning and Spanish speakers spent 4%.

c) L_1 Spanish and L_2 English/L_1 English and L_2 Spanish

For rhetorical planning, English speakers used 4.5% of utterances in both languages in rhetorical planning; Spanish used 14% in their L_1 and 4% in their L_2 .

It appears that NSS paid more attention to rhetorical planning in L_1 than NES did.

4.2.3 Data from Interviews

Generating Content

This section presents the explanations given by the participants on how they generated content in their L_1 and L_2.

Participants explained that they used topic or subject of the writing task to help them start generating in their first language; all of the participants except Kristin said that. Rereading or self questioning helped them also in generating content as well. Free writing was mentioned by Kristin as a possibility in content generating in L_1 and L_2. In their L_2, all of the participants said that topic or subject was helping them in generating. Rereading was used also to generate content.

Planning in L_1 and L_2

In conceptual planning, the writers said they linked ideas and built paragraphs in both languages. (The participants said that they did this in both L_1 and L_2). "What are the main differences between one language and the other?" (transcribed data DL_1).

For rhetorical planning, L_1 Spanish writers worried in their first and second language writing that the language they use may not be appropriate. L_1 English speakers worried only in their L_2 writing. "I'm stuck in one word here, I don't seem to be able to finish" (transcribed data DL_1).

4.2.4 Written Products

Written products are explained using quantitative data.

For triangulation purposes the written products in addition to researcher's observation, think aloud and interview data were used in this study to confirm any patterns dealing with research question #1. For example, writing several drafts could indicate very active planning or difficulty with content generation. Difficulty in content generation is noticed if several drafts deal with the same topic but the writer cannot choose a direction. Active planning is shown by many ideas that are being produced; hence several drafts. At the end of this section table 6 summarizes the findings below.

Maria (L_1 Spanish) (Colombian)

Neatly written, she produced one draft of 400 words in L_1. In L_2, she produced two drafts, her final contained about 350 words. Some evidence of conceptual planning was reflected by comparing the drafts (first draft in L_2 contained notes from a brainstorming activity). Many changes were made by erasing part of the sentences (she was using a pencil).

Eduardo (L_1 Spanish) (Cuban)

One draft for each session L_1 and L_2 was produced. Approximately 300 words for L_1 and 250 for L_2. Several changes to the drafts appear to be made. Ideas and lexical changes made in L_1 were discarded. Revision and rhetorical planning was evident.

Jorge (L_1 Spanish) (Chilean)

As mentioned before, Jorge used his computer to do the sessions, since he insisted that without the computer he could not write. Both of his drafts (L_1 and L_2) were final drafts containing about the same number of words (400 words). It is difficult to tell what went on with only the final drafts. Since the products were not the focus but think-aloud were, the use of computer was not discouraged. Generating content dominated the process.

Paula (L_1 Spanish) (Mexican)

Her L_1 product was about 200 words and her L_2 about 300 words. She only did one draft for each language. The changes in the L_1 draft are of lexical nature, in the L_2 there are linguistic (grammatical) changes. Generating content and rhetorical planning were evident.

Kristin (L_1 English) (Canadian)

Written clearly, she produced one draft of about 350 words in L_1 and one draft of about 260 words in L_2. There were no extra notes. No evidence of revision or corrections were indicated. Her written product did not contain any changes made. It appeared that generating content dominated the process.

Cathy (L_1 English) (Canadian)

For L_1 essay, the participant developed three drafts: the first one was used for making lists for comparison or brainstorming and the second was a composition written in chunks. Her third contained the content (approximately 250 words) she wanted to use for her final

copy. Constant revision took place. For her L_2 essay, she developed two drafts: the first contained the list of items she compared. The second had the entire essay of approximately 300 words. There were statements pertaining to planning (conceptual, rhetorical) with the different types of drafts. Revision centred on lexical and grammatical items. Conceptual and rhetorical planning were evident.

Mary (L_1 English) (Canadian)

In L_1, this participant produced two drafts. Her first draft contains her planning of her main idea, content items that she wrote while brainstorming and introduction. Her second draft contains approximately 400 words. Revision involves text structure and lexical items. In L_2, she produced one draft about 120 words. Not many changes were made to the drafts. Conceptual and rhetorical planning were evident.

Kevin (L_1 English) (Canadian)

Two drafts were produced for L_1. The first draft has notes comparing Latin American to Canadian culture. The notes are written in a table form. The second draft is an essay of about 400 words, neatly written. In L_2, he wrote only one draft, the final copy of about 150 words. There is no revision or planning statements changes to the draft. Generating content and conceptual planning are evident.

Table 6. Written Products

Participant	L_1	# drafts L_1	# drafts L_2	Utterances during think-aloud sessions L_1	Utterances during think-aloud sessions L_2	Final Draft # Words L_1	Final Draft # Words L_2
Maria	Spanish	1	2	195	178	400	350
Eduardo	Spanish	1	1	119	83	300	250
Jorge	Spanish	1	1	127	82	400	400
Paula	Spanish	1	1	73	78	200	300
Kristin	English	1	1	88	55	350	260
Cathy	English	3	2	317	209	250	300
Mary	English	2	1	280	67	400	120
Kevin	English	2	1	318	117	400	150

4.3 Research Question #2

What writing strategies were used in facilitating their content generating and planning during writing?

The data came from observation, think-aloud protocols, and interviews. The intent of this research question was exploratory so that the researcher looked for patterns. The strategies reported in this section emerged from the data in this study. The results are presented in table 7 and are explained in the following sections.

Table 7
Percentages of the attention paid to specific strategies

L_1 (Spanish or English)				Average	
		Number of Participants		English L_1	Spanish L_1
1.	Rereading to Edit	7	(except Kristin)	7%	4%
2.	Use of L_2 and L_1 (when writing in the other language)	1	(Spanish Speaker)	-	1%
3.	Pausing	1	(English Speaker)	1%	-
4.	Talking to the Experimenter	6	(except Maria, Kristin)	4%	12%

L_2 (Spanish or English)				Average	
		Number of Participants		English L_1	Spanish L_1
1.	Rereading to Edit	6	(Except Mary, Kevin)	7%	6.5%
2.	Use of L_2 and L_1 (when writing in the other language)	3	(2 Spanish, 1 English)	7.5%	6%
3.	Pausing	1	(Spanish Speaker)	–	1%
4.	Talking to the Experimenter	5	(Except Maria, Kristin, Eduardo)	8%	3.5%
-	indicates no one used this particular strategy				
*	for more information see table - in appendix I				

4.3.1 Rereading to Edit

This particular section deals with quantitative and qualitative data.

Rereading to edit is considered here a strategy because it facilitates both content generating and planning. By adjusting the text, generating and planning is stimulated.

Observation

The subjects reread to edit, although much of it was part of the rhetorical planning. They were trying to improve the style. It appeared to be quite frequent in L_2 for both groups.

Think-aloud data

The think aloud transcription contains a lot of repetition shown in rereading to edit taking place "the learners will have any problem related to...no...some problems.....related to any skills...no...the person has the most difficulty with learning vocabulary" (Maria, L_2). 7% of the utterances of English Speakers was related to rereading to edit in their L_1, Spanish speakers 4% of their utterances. In their second language English speakers used 7% of their utterances on editing and Spanish speakers 6.5%. Here both groups focused more attention on their editing in a second language. Moreover, all of the subjects reread to edit either in their L_1 or L_2 or both sessions. Since the subjects were proficient (expert) writers, this finding is consistent with Bereiter and Scardamalia's (1987) findings.

4.3.2 Use of L_1 in L_2 (or L_2 in L_1)

Observation

Observation data indicated that there was more use of L_1 when writing in L_2; in particular, subjects, Maria, Eduardo, Cathy used L_1 in L_2 writing. Also, there was a slight use of L_2 in L_1, for Maria and Cathy, but it referred mostly to vocabulary, such as not knowing the word "behaviour" in Spanish (Maria).

Think-aloud data

One Spanish (Maria) speaker and one English (Cathy) speaker used their second language while writing in their first. Maria and Cathy, used L_1 when writing L_2 and L_2 when writing L_1. Maria's think aloud protocol..."behaviour I am thinking about the word in English, but I want it in Spanish___ Oh God___ (laughing) (observation notes and think-aloud protocol) -

I remember the word in English but not in Spanish." Others did their think-aloud protocols solely in L_1 when writing L_1. In generating L_2, three participants used their first language occasionally; Maria used 5%, Cathy used 30% and Eduardo used 18% of their total think-aloud utterances.

Interviews

Some (Kristin, Jorge, Cathy) said they used dictionaries when writing in their second language (L_2). Most (except for Mary) also said they did not use dictionaries while writing in L_1 and they did not. Dictionary use may not be a strategy that aids content generating and planning.

4.3.4 Talking to the Experimenter

Observation and think-aloud data.

It is interesting to note that two people who were published writers (fiction, non-fiction) spoke to the experimenter at length at the beginning of their first session. They tried to clarify as to the expectancies of the researcher in regard to the written product, such as what the topic meant "What do you mean by noticeable differences or what is the difference between collective and individual rights?" (Eduardo, L_1). Jorge used 25% of his think-aloud session to discuss what he should write for the given topic in L_1. "I think individual rights in the North American Society have more importance than in the Latin American culture." (Jorge, L_1). Similarly Paula used 21% of her L_1 utterances for the same purpose. Only two

participants, Maria and Kristin, did not talk to the experimenter during their think-aloud sessions. Other data did not produce any information regarding this particular topic.

4.3.6 Summary of Writing Strategies

These strategies were used in both content generating and planning. They were used simultaneously for generating content or planning.

Table 8. Summary of the Writing Strategies Used in Content generating and planning of L_1 and L_2

Participant	L_1	Dominant Strategy	L_2	Dominant Strategy
Maria	Spanish	- Rereading	English	- Rereading
Kristin	English	- Rereading	Spanish	- Rereading
Eduardo	Spanish	- Rereading	English	- Use of L_1
Jorge	Spanish	- Talking to the researcher	English	- Talking to the researcher
Paula	Spanish	- Talking to the researcher	English	- Talking to the researcher
Cathy	English	- Talking to the researcher	Spanish	- Use of L_1
Mary	English	- Talking to the researcher	Spanish	- Talking to the researcher
Kevin	English	- Rereading	Spanish	- Rereading

As in Table 8, there were several strategies that the subjects used during their writing sessions. They were rereading to edit, using L_1 while writing L_2, using L_2 while writing in L_1, talking to the experimenter (Jorge), and using bilingual dictionaries (Maria, Mary). Tables 7 and 8 report some of these strategies, in particular the ones that aid content generating and planning.

In the review of literature ten categories of different strategies were given by Leki (1995). Comparing the results of this study and those of Leki here are some of the similarities.

a) Clarifying Strategies

Several subjects engaged in lengthy conversation/discussion with the researcher during the writing think aloud session. The purpose here was to clarify the topic or the expectancies of the researcher.

b) Focusing Strategies

All of the subjects were using rereading to generate content or to edit their written product.

c) Taking Advantage of First Language/Culture

Three participants used L_1 in writing L_2.

d) Using Current or Past ESL Writing Training

Spanish speakers were concerned with the style. During writing sessions their think aloud indicated more focus on this particular factor. In addition several subjects used paragraph structure taught in their ESL writing. All of the subjects seemed to revise for grammar in L_2 as discussed by Silva (1993).

4.4 Summary

In this chapter, data pertaining to the two research questions were reported. Interview, think-aloud, observation notes and written product data were used for this purpose. In the next chapter the interpretation of the results will be given.

CHAPTER V

5. INTERPRETATION OF THE RESULTS

5.1 Introduction

The findings of this study are discussed as responses to the two research questions posed earlier:

5.2 Research Question #1

Content Generating and Planning Profiles

Do the content generating and planning vary cross-linguistically (Spanish/English) or from group to group (first/second language) in proficient bilingual writers? Results from this study suggest that there are similarities, not differences, in generating and planning processes in L_1 and L_2 writing of proficient adult writers. Although much of the research in the review of the literature was done with L_1 only, L_2 writing shows similar process in think-aloud transcriptions of all the subjects in this study, supporting the use of Bereiter and Scardamalia's 1980 model for L_2 writers. As in L_1, the subjects started with problem analysis (Fig. 4) and moving from content area to rhetorical area. Since this process matches Bereiter and Scardamalia's model it provides an example for the definition of writing cited by Galbraith (1992, p. 45): writing is a process of rhetorical problem-solving, "in which the writer's task is to construct a text satisfying a set of rhetorical goals".

The results of this study contradict Silva's (1993) results where he found that L_1 and L_2 writing processes were different. However, Silva's subjects were undergraduate students

who were still studying their second language as compared to the writers in this study who finished their second language at the university level and worked in both their first and second languages (where writing was required).

In general, the results when analyzed against Bereiter and Scardamalia's 1987 knowledge transforming model indicate that there are no differences cross-linguistically between L_1 and L_2 content generating and planning for the participants in this study. Thus the findings of this study support Matsumoto (1995) findings. Matsumoto's subjects were similar to this study subjects (they were university professors who were bilingual-Japanese\English).

5.2.1 Content Generating in L_1 and L_2

Since the native English speakers generated more content (according to their think-aloud transcription) in their L_1 and L_2 than their Spanish counterparts in their L_1 and L_2, the results suggest differences between the two groups rather than L_1 and L_2 differences. According to Levy and Ransdell (1995) studies: "Generating text initially consumed 40% of the writers' time, peaked at 50% mid way, and then declined to its original level." (Levy and Ransdell, 1995, p. 767). Levy and Ransdell subjects were 10 undergraduates from the University of Florida and they volunteered to participate in a 12-week writing study. There was no focus given to the issue of L_1 or L_2; the subjects were English speakers. Spanish speakers from this study have shown similar results to those of Levy and Ransdell's (1995) study. Although, English speakers appear to generate more than Spanish speakers, their conceptual and rhetorical planning appears lower (table 5) than the Spanish speakers. Levy and Ransdell (1995) found that as the session progressed in writing, the subjects "spent

increasingly less time planning" (Levy and Ransdell, 1995, p. 767). Perhaps English speakers behaved more as if they were finishing the task by generating more and planning less. The differences in the results (English Speakers generating more than Spanish Speakers) could also be due to different schooling practises, since their education was completed in two different countries; native English Speakers were educated in Canada but Spanish Speakers were educated in Central and South America.

Berman (1994) suggests that transfer of writing skills from L_1 to L_2 is possible if the writer possesses L_2 grammatical proficiency which the participants in this research did (as per writing sample). According to Berman, there should be similarities between L_1 and L_2. Of course, the results of this study indicate similarities.

5.2.2 L_1 Spanish Speakers and English Speakers (planning)

The results from this study do not support Gould's (1980) findings that planning takes up two thirds of composing time; rather they support Levy and Ransdell (1995) and Caccamise (1987) who find that planning tapers off as the writing session continues. Planning in this study took one third of the composing time. It is possible that their topics allowed them to rely on knowledge-driven planning as explained by Flower (1994). Therefore, they did not require as much time as proposed by Gould (1980).

As shown in the data analyses in Chapter 4, more focus was found on conceptual planning in L_1 than L_2 in native English writers; the reverse was shown with Spanish speakers, except for Jorge. The research conducted by Silva (1993) with second language writers, points to findings that L_2 writers did less planning than L_1 writers, and is consistent with

the NES participants in this study. However, NSS participants did less conceptual planning in L_1 than L_2. Perhaps this could be explained by Flower's model (1994) of knowledge-driven planning. Flower explains that this model operates if the "writer's knowledge is adequately developed and already structured to meet the needs of the rhetorical situation" (p. 134); thus L_1 writers possessing structured knowledge already may be using knowledge-driven planning and requiring less time for planning conceptually.

Process planning for NES was slightly higher in L_1 than L_2. The reason for this difference could be that they felt more at ease verbalizing in L_1 (English being their first language). When verbalizing in L_2 writing task, they perhaps were using their L_1 or were thinking in English (L_1) and not verbalizing at all; fewer utterances were given in Spanish than English. NSS were consistent in their use of process planning for both languages, thus transferring their writing skills from L_1 to L_2 (Berman, 1994) NES appeared to focus more on generating and "less on planning as the session progressed" (Levy and Ransdell, 1995, p. 767). It is possible that verbalization has an effect on the process of writing but it is rather a minimal effect. Therefore its use is still beneficial in such studies as this.

Rhetorical planning was consistent for NES in L_1 and L_2; again, transfer of writing skills was evident in the think-aloud verbalization. The writers were treating their L_2 session as their L_1 session. An opposite trend was evident with NSS who spent more time on rhetorical planning in their L_1 than L_2. One or two NSS participants said that they found Spanish writing to be more difficult as to rhetorical planning - right vocabulary for the right mood was challenging for them. They felt that the difference between writing in Spanish

and English was that Spanish required more "fancy words". (Interviews, individuals comments).

5.2.3 Triangulation

The data has been triangulated using think aloud transcription, interviews, and observation notes during the writing sessions. The participants who said (interviews) that they used outlines during their writing, did in their L_1 and L_2 sessions (observation notes); moreover there was evidence of their making outlines (think aloud, and product). NSS said (interviews) that they needed to be more selective about the choice of the vocabulary in their L_1 more than L_2. Observation indicated that they made many changes of the words to suit the context. Also rhetorical planning for L_1 is higher than for L_2 (table 5). All participants said that they used similar process in L_1 and L_2 writing (interview).

5.2.4 Summary of the Interpretations for Question #1

There are similarities in content generating and planning of adult L1 and L2 writers using Bereiter and Scardamalia's 1987 model. These findings support Matsumoto (1995), Jones and Tetroe (1987) but do not support Silva's (1993) results.

There is a difference in content generating between English native speakers and Spanish native speakers; the English speakers generated more in L1 and L2 than Spanish speakers did. This was confirmed by observation and transcribed think aloud protocols.

5.3 Research Question #2

Writing Strategies facilitating L_1 and L_2 writing in this study

Although all participants used similar strategies such as rereading, talking to the researcher, brain storming, they also used their own unique approach looking up words in dictionaries, using L_1 while doing L_2. They used a similar variety of writing strategies in both their L_1 and L_2; for example if they used brain storming in L_1 they would use brain storming in L_2 (Cathy). This finding confirms Matsumoto's position (1995) that L_1 strategies transfer to L_2 writing; and Berman's (1994) study that successful transfer from L_1 to L_2 is "assisted by the grammatical proficiency in the target language" (p.29).

In the following paragraphs most of the writing strategies reported will be discussed using the O'Malley and Chamot's 1990 classification (Cyr, 1996, p.39; Leki, 1995) as presented in chapter 2.

5.3.1 Rereading to edit or revise

In order to facilitate their composing in L_1 and L_2, both groups used rereading as the most common strategy in editing. It is different from rereading to generate content. For generating purposes, rereading written text several times can be explained by **directed attention** on the writing task; in the O'Malley and Chamot Model (1990) it is called a metacognitive strategy or directed attention. One directs one's attention to the concepts written so far in order to develop them further for generating or planning.

Rereading used in order to revise in this study was more frequent in L_2 than L_1, supported by three kinds of data (think aloud, observation, interview). Referring to the observation

notes, think aloud, and to the written products, L_2 rereading to edit seemed to focus more on grammar than style. (Jorge used the grammar check on his computer.) Silva (1993) found similar trends. He states "L_2 revision seemed to focus more on grammar" (1993, p.662). If English was their L_2, the participants were concerned about spelling. Revision could be considered a metacognitive strategy such as selective attention (Cyr, 1996, p.39). In the study, all of the participants focused on grammar in their L_2 writing. Once again, the approach to rereading to edit was their own individual strategy that they used in both sessions (L_1 and L_2), consistently. The differences were between individuals, not between L_1 and L_2. Some of the participants did much rereading to edit while composing so that when they got to the end they did not have to revise it. Eduardo and Kevin used this approach. Jorge used the computer and revised during and after finishing composing. Maria used a pencil so that she could make a lot of changes; all throughout her composing she was erasing certain parts and inserting new words and phrases. This was unique because the others crossed out the words no longer needed. All these examples indicate individual differences in their choice of strategies for writing in L_1 and L_2. These strategies would enhance their writing process illustrated by Bereiter and Scardamalia's (1987) knowledge transforming model.

5.3.2 Use of L_1 in L_2 writing or L_2 in L_1 writing

Language switch was caused by many factors, as suggested in post-writing interviews. Some switched because they felt they did not know the vocabulary, or they remembered a situation in the language they switched to; some switched because they felt more comfortable using the other language at that time and some did not know or remember

why. Switching languages appeared to help with rhetorical planning or content generating (observation notes).

In order to identify the reason for switching to other language, the researcher would have needed to interrupt the individual at the time of switching and interfere with the composing process. Thus the idea of interrupting was rejected. Later data was not really reliable; the participants could have forgotten the reason. The researcher focused on the verbal data only from think-aloud protocols, as suggested by Bereiter and Scardamalia (1987). They say "think-aloud data is only a record of what is observed and does not offer direct insight into mental process" (p. 43).

5.3.3 Speaking to the researcher during writing sessions

One of the strategies, in problem analysis (Bereiter and Scardamalia's 1987 knowledge transforming model p.25), used by some of the participants was a conversation with the researcher during writing. It is interesting to note that only two participants did not talk to the researcher during their writing sessions. Talking with the researcher for the purpose of clarification is classified as questioning for clarification by O'Malley and Chamot (Cyr, 1996). It is a socio-affective strategy. The participants who spoke at great length (researcher's notes) were the two professional and published writers. As they were more experienced writers so they may have felt more at ease to discuss the topic. Both individuals appeared to have developed this type of writing strategy to assist them in problem analysis in their writing. Since there was more interaction with the researcher in L_1 sessions than in L_2 sessions for both languages, the participants were perhaps more

uncertain in their first session than in their second session. Many also pointed out that the topic for the L_2 session was easier than L_1 topic. Since it was their second session, perhaps they had some experience with the procedure.

5.3.4 Summary of Interpretations for Research Question #2

The study confirms Matsumoto's (1995) findings that L_1 strategies transfer to L_2 writing as indicated by the subjects who used the same strategies in L_1 and L_2 writing sessions. L_2 revision seemed to focus on grammar which supports Silva's (1993) findings.

5.4 Other issues

Referring to Table 3, qualitative differences were observed. The focus while writing L_2 is dominated somewhat by linguistic concerns. When writing L_1 the focus is on writing skills or writing process. According to table 3, L_2 writers worry about grammar, punctuation, different discourse organization, unlike L_1 writers who are concerned about the style such as word order (in relation to style), proper terminology and vocabulary. L_1 writers also worry about the process during writing such as generating ideas, blank page syndrome and being creative. Of course these are writers' perceptions that were checked with other data such as think-aloud protocols. There was no evidence to support their claim in either researcher's observation or think-aloud protocols. The proficient writers compose in a similar manner in both L_1 and L_2. If they used a dictionary they used it in both sessions. Their strategies were almost identical in both L_1 and L_2 sessions.

5.5 Summary

The study's purpose was to explore differences in content generating and planning processes in proficient L_1 and L_2 writers. This chapter dealt with interpretation of the results for each question.

There are no highly noticeable differences between L_1 and L_2 writing; although, the minor differences mentioned are perhaps specific for this particular group as not all of the data support these tendencies. Thus the findings of this study support Matsumoto (1995) findings that L_1 writing strategies are similar to L_2 writing. The subjects' writing process matches Bereiter and Scardamalia's (1987) knowledge transforming model.

CHAPTER VI

6. IMPLICATIONS FOR THEORY, FURTHER RESEARCH AND TEACHING

6.1 Implications for Theory

As previously mentioned, there is no comprehensive theory of L_2 writing (Silva, 1993); L_2 writing practitioners base their assumption on L_1 composition. Silva (1993) explains that writing specialists need to look beyond the L_1 theory so they could better describe L_2 writing. According to Silva, L_2 writing theory would enhance L_1 writing theory with its true multilingual/multicultural perspective.

To date there is a division among researchers as Silva (1993) who believe that there are differences between L_1 and L_2 writing, and others, Matsumoto (1995) and Berman, (1994), Jones and Tetroe (1987), who view L_1 and L_2 writing skills as similar, provided that the learners possess grammatical proficiency (as described by Berman, 1994) to facilitate their transfer of skills.

This study has not provided enough support for Silva's (1993) point of view. There are some differences (as to the number of utterances) when examining the content generating of Native English Speakers and Native Spanish Speakers with English speakers producing longer think-aloud for both L_1 and L_2. Moreover, the present study points to individual differences relying on a similar variety of writing strategies for both L_1 and L_2. An individual who is very proficient in two languages may with ease transfer writing skills from L_1 to L_2 but this theory needs to be supported by further research. The results of the study support the knowledge transforming model (Bereiter and Scardamalia, 1987) as in the conceptual framework of this

study. Content generating and planning processes studied in this research can be explained using Bereiter and Scardamalia's model 1987. Its recursive nature fits very well with their model. The writer goes back and forth between the content and rhetorical problem space (Fig. 4). Moreover, Haas' categories (1989) used to distinguish between various planning processes also can be part of a writing model. Some current writing models do not break down the various processes as Haas' different planning processes. The majority of the writing theories in L_1 deal with expert writing more thoroughly than novice writing (Bereiter and Scardamalia, 1987). Perhaps there should be a model or theory that would include writers whose language proficiency (as in second language) is not near-native speaker but yet the writers are communicating adequately in writing. According to Cumming (1989) "it would appear writing expertise and second-language proficiency are psychologically different" (p.118). But he adds that as proficiency in the language improves, the writer "becomes better able to perform in writing in his/her second language, producing more effective texts"... (p.121). A model of writing for L2 writers whose L2 proficiency is not up to bilingual standards would be beneficial in helping them to develop their writing to the expert level. This new model for ESL learners could bring in a multicultural perspective as proposed by Silva (1993).

6.2 Implications for further research

Various questions/issues were raised while the data from the study were examined. The division in the point of view of whether there are differences in L_1 and L_2 writing suggests a need for more rigorous research, such as research with several languages as second languages. More comparative research is needed to explain transfer of skills and differences that are not facilitated by transfer of skills. Comparing different revision styles may provide an insight

into the composing processes: some individuals tended to revise while composing, others left revision to the end. It would be very interesting to see whether the revision varies between L_1 and L_2 and whether it is influenced by the native language or culture. Since only one second language was studied, the findings only refer to Spanish speakers. Another question is the following: will proficient bilingual writers have more difficulty with revision if their two languages come from a very different language group. One could replicate this study and use it with other language groups to see if the results are different from those of this study's. Also, an increased number of subjects in future studies on comparing L_1 and L_2 writing processes would add to the data and thus make the results more generalizable. Matsumoto (1995) found in her study that her subjects perceived writing in L_1 similar to writing in L_2. Do the writers' perceptions affect their writing processes? Some of the participants in this study said that writing in English was different or required different skills than writing in Spanish. Spanish speakers were the ones who noticed the difference. They said that they worried more about the choice of words in writing Spanish.

Since this study used proficient bilingual writers who were highly competent in both their first and second languages, there were no significant differences between their first and second language content generating and planning in writing. However, more research would be helpful in the area of second language proficiency and writing; for example, what levels of oral proficiency are sufficient for writing? Second language students' essays are usually marked for the following criteria: their writing skills and their second language proficiency. How can this issue be addressed? Should the students not be judged (marked) in their writing until they reach a certain level of language proficiency?

6.3 Conclusion: Implications for teaching

The findings in this study do not support the view that L_1 writing and L_2 writing (generating and planning) processes are different. Rather, they support the view that if the writers are proficient in their L_2, their writing skills will transfer from L_1 to L_2, implying that the writers use similar writing strategies when writing in both first and second language (Breman, 1994; Matsumoto 1995).

What does this suggest for the teachers of ESL who are dealing with learners that are not very proficient in English. According to Berman (1994) L_2 students who function at lower proficiency levels, may need greater help with their second language skills in order to transfer their writing skills. Also, L_2 writing teachers need to devote more time and attention to strategic concerns to enhance learners' writing (Silva, 1993), particularly with those who do not possess grammatical proficiency. One of the findings (in this study) indicated that Spanish writers seemed to generate less content in their think-aloud protocols while writing in both L_1 and L_2 whereas English speakers produced more content. It is difficult to attribute the reason to the difference between L_1 and L_2. NSS may have verbalized less in content generating than NES but attended to the planning processes more. Another possible explanation is that NSS may have been taught in their writing courses to be more focused on planning and not to generate too much content. Yet another reason may be that NES are taught to generate more than they need. The researcher has taken writing courses in English and has been advised during the writing to generate more than needed to make the essay successful. It may be that different schooling systems in non-English speaking countries teach somewhat different

writing strategies. Thus the ESL teachers should focus on teaching writing strategies pertaining to content generating, in this case with Spanish native speakers, if the students are having difficulty with content generating.

APPENDIX A

Band system for British Council ELTS Test

9	The writing displays an ability to communicate in a way which gives the reader full satisfaction. It displays a completely logical organizational structure which enables the message to be followed effortlessly. Relevant arguments are presented in an interesting way, with main ideas prominently and clearly stated, with completely effective supporting material; arguments are effectively related to the writer's experience or views. There are no errors of vocabulary, spelling, punctuation or grammar and the writing shows an ability to manipulate the linguistic systems with complete appropriacy.
8	The writing displays an ability to communicate without causing the reader any difficulties. It displays a logical organizational structure which enables the message to be followed easily. Relevant arguments are presented in an interesting way, with main ideas highlighted, effective supporting material and they are well related to the writer's own experience or views. There are no significant errors of vocabulary, spelling, punctuation or grammar and the writing reveals an ability to manipulate the linguistic systems appropriately.
7	The writing displays an ability to communicate with few difficulties for the reader. It displays good organizational structure which enables the message to be followed without much effort. Arguments are well presented with relevant supporting material and an attempt to relate them to the writer's experience or views. The reader is aware of but not troubled by occasional minor errors of vocabulary, spelling, punctuation or grammar, and/or some limitations to the writer's ability to manipulate the linguistic systems appropriately.
6	The writing displays an ability to communicate although there is occasional strain for the reader. It is organized well enough for the message to be followed throughout. Arguments are presented but it may be difficult for the reader to distinguish main ideas from supporting material; main ideas may not be supported; their relevance my be dubious; arguments may not be related to the writer's experience or views. The reader is aware of errors of vocabulary, spelling, punctuation or grammar, and/or limited ability to manipulate the linguistic systems appropriately, but these intrude only occasionally.
5	The writing displays an ability to communicate although there is often strain for the reader. It is organized well enough for the message to be followed most of the time. Arguments are presented but may lack relevance, clarity, consistency or support; they may not be related to the writer's experience or views. The reader is aware of errors of vocabulary, spelling, punctuation or grammar, which intrude frequently, and of limited ability to manipulate the linguistic systems appropriately.
4	The writing displays a limited ability to communicate which puts strain on the reader throughout. It lacks a clear organizational structure and the message is difficult to follow. Arguments are inadequately presented and supported; they may be irrelevant; if the writer's experience or views are presented their relevance my be difficult to see. The control of vocabulary, spelling, punctuation and grammar is inadequate, and the writer displays inability to manipulate the linguistic systems appropriately, causing severe strain for the reader.
3	The writing does not display an ability to communicate although meaning comes trough spasmodically. The reader cannot find any organizational structure and cannot follow a message. Some elements of information are present but the reader is not provided with an argument, or the argument is mainly irrelevant. The reader is primarily aware of gross inadequacies of vocabulary, spelling, punctuation and grammar; the writer seems to have no sense of linguistic appropriacy, although there is evidence of sentence structure.
2	The writing displays no ability to communicate. No organizational structure or message is recognizable. A meaning comes through occasionally but it is not relevant. There is no evidence of control of vocabulary, spelling, punctuation or grammar, and no sense of linguistic appropriacy.
1	A true non-writer who has not produced any assessable strings of English writing. An answer which is wholly or almost wholly copied from the input text or task is in this category.
0	Should only be used where a candidate did not attend or attempt this part of the test in any way (i.e., did not submit an answer paper with his/her name and candidate number written on).

APPENDIX B

When I arrived in Ottawa, December 8, 1974, snow was falling softly and slowly. Beautiful white flurries descending like feathers at the Ottawa International Airport. I'd seen snow before in my native Santiago, but it had never lasted more than a few hours on the ground. Here, I could see it from the airplane, the whole field of play was carpeted in white. There were a few black straight lines on which cars moved, sleepwalking with their eyes open.

I spoke some English; enough to ask the flight attendant: "The coffee is free?" when she offered me drinks. I was immensely happy when she said yes, not about the coffee, but because she understood what I said. But when communications got a little more complicated I quickly reached the end of the my comfort level, and became nervous and erratic. Like the time I stopped a man on the street and asked him where could I buy a bottle of wine. *"Vine?"* he asked. "No, *wine*", I repeated. "Yes", he said, "you can buy *vine* at the liquor store on Bank". I had no idea I was talking to a West-European, and for a minute I thought *I* was pronouncing the W as V.

More challenging to me was to sit in an ESL class with students of all levels. I was quickly improving my oral skills, but found that in my class the literacy level was on average very low. We could not spend too much time reading and writing, because, out of the 25 students (more or less) in the class, many were non-Roman alphabet students, others were long time residents who could speak but were not literate in their first language. The class moved ever so slowly some days. There were four or five students, bored to tears; trying to fake enthusiasm when the class embarked in their snail-paced reading and writing exercises.

Our teacher was not a fool. She quickly realized she could do better with us: She asked us if we have read some classic authors, I remember her asking me if I had read Herman Hess's Steppen Wolf (Ah, El Lobo Estepario, I figured). "Yes", I said, with enthusiasm, "in Spanish". She had already found out that another student had read "The Metamorphosis", in Italian, and someone else had read "The Return of the Prodigal Son" in its original French. "Well", she said, "You are going to re-read these books, this time in English, and we'll discuss your progress on a regular basis".

The arrangement was to meet with the group of five every day after lunch and present a chapter (more or less) on our readings. You are entitled to miss one session, but no more.

This experience helped me very much. I did not find the readings too hard, as I knew the subject; but moreover, I had the opportunity to discuss my reading with a group. This made me feel that I could communicate complex ideas, and held me up in the days with I felt like I was a nobody, had nothing to say, couldn't even speak the language.

In addition to the immediate benefits, it helped me in forming, or re-creating my new reading habits. I re-read a few other books on my own, but I was soon reading literature I had not read before in Spanish. After the first year or so, I remember stopping myself in the middle of a book and saying "Wait. I've read half of this book, and have not realized for a minute that the book's in English!" An experience not unlike the free coffee and the flight attendant.

APPENDIX C

Questionnaire (Ph.D. Research) July, 1996

1. Do you write in both English and Spanish?

2. What do you write in English.... in Spanish? (eg. personal letters).

3. Can you remember some of the things that you have written in either English or Spanish that were particularly good or that someone praised you?

4. What are some of the difficulties you experience when you write in your first language? in your second language?

5. How do you try to overcome these difficulties?

6. What are some of the strategies you use to keep coming up with ideas L_1 and L_2? When nothing comes what do you do in L_1 and in L_2?

7. What do you do when you teach writing?

8. Have you taken courses in writing? How were you taught writing?

9. What part of writing do you enjoy?

10. What part of writing is the least enjoyable?

11. Do you read in L_1 or L_2?

12. What kind of books do you read?

APPENDIX D

Notes taken during observation of participants doing think-aloud while writing.

Cathy L_1

- a lot of generating going on
- conceptual planning
- good verbalization
- uses dictionaries for spelling (looks up a word)
- very dynamic
- very dynamic
- verbalizing a lot
- asked about the format of the writing
- focuses on an aspect rather than the whole topic
- interacts with the experimenter – several times –
- she experiences blank idea syndrome
- # going blank again

Cathy L_2

- uses English to deal with the topic
- uses a dictionary to look up words
- generates in English, puts sentences together in Spanish – translates
- interacts with the experimenter in English
- has to do outline
- experiencing blank idea Syndrome
- looks at her notes
- hard time with generation
- started using English at the beginning and turn into using Spanish
- her composition in Spanish flow better (she said)
- she said the second topic is easier (the first topic was a little more difficult)

APPENDIX E

L_1 Topic (Ph.D. Research) July, 1996

You have been exposed to two cultures: your own and that of your second language. Try to compare them. What are some of the noticeable differences? For example, do people in your culture see the collective or group rights as more important than individual rights?

L_2 Topic

You speak two languages and perhaps can teach them both. Try to compare English and Spanish by discussing some of the difficulties you had learning your second language and some of the difficulties you notice people have learning either Spanish or English.

APPENDIX F

Transcribed Think-Aloud Sample

subject CL2-1
Aug. 1 /96

2, 2, 2 ..Speaks spanish...you speak .... reads the topic.....
10, 0, 0 OK....ah...speaks in Spanish..... translates the title for
himself into Spanish...uhm...I think I'll start talking about
10, 4, 4 somekind of..uhm.....speaks in Spanish.....
4, 4, 4 .....while learning....a language.... uhm...speaks in
4, 4, 4 Spanish...uhm...no matter which one..... .....there's always
10, 10, 10 uhm. there's always primary to mother
4, 4, 4 tongue....or first language....uhm...it's very common .... there
3, 3, 3 occurs...speaks in Spanish...to see.. second language learners
10, 0, 3 trying to accommodate.....their...uhm...well known....language
3, 3, 3 structures.....to..uhm..speaks in Spanish.....to the new ...
3, 3, 3 speaks in Spanish.....rereads.....to the new ...speaks in
10, 2, 1 spanish.....uhm.....well.....teaching...spanish...
10, 4, 4 ..several times. I observed students..uhm...who.....uhm..
4, 4, 4 students... (interruption)....laughs.....students....who.... will
4, 16, 4 try ... uhm...argue... try... and even argue...uhm....complicated
3, 3, 3 ...speaks in Spanish.....teaching experience...sometimes.... no.
10, 3, 3 .....sometimes..... while teaching Spanish....uhm....I
6, 6, 6 observed ....rereads..edits..... try to transfer.... well....
9, 9, 9 who will even... no... speaks in Spanish.....
9, 10, 10 rereads.....even.....
9, 9, 9 .....but.... very close....to... English... I don't _____
4, 4, 4 .....took me .... more than a year...to get used to.... to the
4, 4, 4 ...more common .....speaks Spanish.....the most common
4, 10, 3 English phrases and structures.
3
4, 4, 4 To me.... uhm... it is obvious..... it's easier... _____ to
learn in terms of grammar when compared..... to Spanish..
4, 4, 4 however.. speaks in Spanish.....rereads...uhm...edits..
9, 10, 9 more rigid.... syntaxes..... don't.... requires.. from the
3, 10, 3 learner ..... speaks in Spanish.. it is easier to ....uhm...
3, 3, 3 _____ the structure of the sentence... without
3, 3, 3 .....loosing... the meaning...of the ...uhm..uhm..phrase.
4, 10, 4 Pronunciation .....speaks in Spanish...is also..uhm.. a difficult
4, 4, 4 uhm. issue..when learning English.....well...uhm.... well..
10, 4, 4 uhm... speaks in Spanish..... pronunciation.... in Spanish....
4, 4, 4 more consistent...in English... the are.... more...sounds..
4, 4, 4 for the same consonant.....or a vowel.....or combination of both
4, 4, 4 ..combination of both.....uhm..... for example.....speaks
10, 4, 4 in Spanish.....for example.....uhm.... in Spanish .... there
3, 3, 3 is.. only ..no..... five vowels.... the sound .... five
3, 3, 3 vowels ..... in Spanish.... have ... one...sound.....
6, 6, 6 each... I wonder if _____ structure than English.... uhm..
4, 4, 4 in English... in Spanish there is only one sound
9, 9, 9 .....rereads.....in Spanish there are only .....there is only
4, 4, 4 .... one sound per vowel.... English .....has 13 sounds..... for
4, 15, 15 five .... I'm having trouble....you can imagine... the
4, 4, 4 ..confusion.... the these...still ....that this creates.....
4, 4, 4 uhm... .....speaks in Spanish.... .....confusion creates.....
2, 2, 2 Still afraid of saying because I don't know

APPENDIX G

L_2 Essay (see L_2 Topic) written by a Spanish Speaker

Difficulties in learning English (my own experiences)

I started to learn English when I was 9. I went to a British school that had a very good reputation. I was in that school until I was 20 years old which means that I took all the courses I could possibly take. I remember the last one was a course on Western Philosophy. So when I came to Canada my English grammar was very good, but I was not fluent at all and my vocabulary was very limited. I had to pay attention to the different pronunciation of Canadian English and be always read to pick new words.

Little by little I was able to understand conversations among English-speaking Canadians because I was aware of the cultural context. But one of the problems that I had and that I still have is that I have what people call "an accent". Sometimes people ask me to repeat what I just said and that bothers me a bit because Canada is a country of accents, including that of the Prime Minister. Sometimes I have to think twice to structure my sentences correctly even though I've worked in English for many years now. These two reasons (my accent and the fact that I have to structure my sentences correctly) make me believe that English will always be my second language and a sort of alien language no matter what.

English-speaking people learning Spanish I think that the problems that these people have are mostly due to the different structure of English and Spanish, for example, the order of words in sentences (adjectives go first in English), the complexity of verbs and adjectives in Spanish (verbs and adjectives

have singular and plural and masculine and feminine connotations). A friend of mine (English-speaking) speaks excellent Spanish but often makes mistakes with the subjective form. When he speaks you can see his mental process in the sense that he is translating from English into Spanish. He sometimes gets impatient and shifts into English, especially when he has to express complex ideas. I think that French-speaking Canadians can learn Spanish more easily because French and Spanish have similar structures and because French Canadians also speak English and are used to being a minority and to performing in a bicultural, bilingual environment. I think that these elements really help people who are willing to learn new languages.

APPENDIX H

Pre-writing Activity (Brainstorming)

South America

- Close knit
- Families stay together
- Even though there are problems
- Children leave home when they get married
- Children are very protected in S.A. cultures
- Bad in a sense - they take longer to mature
- They do not really know themselves before they start living their lives
- Young adults have had every need taken care of
- S.A. they are given chance to mature intellectually

Canada/US Northern

- Not so close knit
- Children leave home early - perhaps it is good
- Young grown ups get to live alone at an earlier age - mature quicker
- They have had time to experience day-to-day living in a responsible way
- Young adults start life at a perhaps too young age
- Mature in the sense they can take care of themselves physically.

In Latin America young adults experience life differently than their counterparts in North America. Whereas the former are protected perhaps too long by family, the latter experience life at an earlier age when they are not perhaps able to handle life's pressures without guidance.

- Young adults rarely live alone
- My family's experience
- Example of large ???
- Hardly any abuse
- However young adults are not given freedom they need at that age
- Leave at age 18
- Alone at university
- Deal with frightening experiences - abuse (sexual or other)
- Young adults are respected as adults at an early age, perhaps too early

Thesis: In Latin America young adults experience life differently than their counterparts in North America. Whereas the former are protected perhaps too long by family, the latter experience life at an earlier age when possibly they are not yet ready to handle life's pressures without guidance.

APPENDIX I

Percentages of the attention paid to specific strategies as indicated by the number of utterances made during think-aloud session.

L_1 (Spanish or English)									Average	
		Maria (S)	Kristin (E)	Eduardo (S)	Jorge (S)	Paula (S)	Cathy (E)	Mary (E)	Kevin (E)	English EL_1	Spanish SL_1
1.	Rereading to Edit	7 (1%)	-	3 (3%)	4 (6%)	3 (5%)	32 (11%)	22 (7%)	28 (9%)	7%	4%
2.	Use of L_2 and L_1 (When writing in the other language)	2 (1%)	-	-	-	-	-	-	-	-	-
3.	Pausing	-	-	-	-	-	1 (5%)	-	-	1%	-
4.	Talking to the Experimenter	-	-	4 (3%)	31 (25%)	15 (21%)	25 (9%)	20 (6%)	9 (2%)	4%	12%
5.	Prompts by Experimenter	-	-	-	-	-	19 (7%)	22 (7%)	-	5.5%	-
L_2 (Spanish or English)										**EL_2**	**SL_2**
1.	Rereading to Edit	4 (2%)	10 (18%)	11 (14%)	4 (5%)	4 (5%)	21 (10%)	-	-	7%	6.5%
2.	Use of L_2 and L_1 (When writing in the other language)	8 (5%)	-	15 (18%)	-	-	42 (30%)	-	-	7.5%	6%
3.	Pausing	-	-	-	-	4 (5%)	-	-	-	-	1%
4.	Talking to the Experimenter	-	-	-	8 (10%)	3 (4%)	32 (15%)	11 (16%)	1 (1%)	8%	3.5%
5.	Prompts by Experimenter	-	-	-	-	-	4 (2%)	6 (9%)	-	4%	-

- Indicates the individual did not use a particular strategy.

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