Chapter 1

AN INTRODUCTION TO THE STUDY

1.1 Introduction

Australian schools, especially in suburban areas, serve a growing number of bilingual children from countries/cultures with languages other than European based. Students of diverse languages and cultures continue to arrive in Australia and interact with the language of wider communication, English. Among Australian school children, according to Partington (1992), one in three children has a close association with another country, and frequently (one in five) with a non-English speaking country. Some educators claim that adequate exposure to English as a second language leads to proficiency in that language for these children. An alternative view argues that these students cannot learn in a language they do not understand; thus, the initial instruction should be given in students' first language (L1). The former view ignores much research evidence which indicates that proficiency
in a second language (L2) not only depends on opportunities to learn that language, but also on the development of the first language, particularly in the area of literacy including reading and writing in appropriate contexts. In support of the effectiveness of initial instruction in L1, it is assumed that academic and linguistic skills mastered in the first language can be transferred to second language academic skills.

With respect to the role of first language literacy on second language proficiency, the theoretical base for this thesis is derived from the literature on children's second language learning, particularly the work of Vygotsky (1992), and mainly from the "interdependence hypothesis" of Cummins (1979, 1984, 1989, 1991).

Vygotsky's view indicated that the successful learning of a second language depends directly on mastery of the first language; that is, the role of literacy in the first language is important in the acquisition of a second language. As Vygotsky (1992) pointed out, first language literacy instruction and its use in formal settings enables children to master linguistic and cognitive processes. This assists in developing their first language with strategies also used to develop the second language.

Cummins' (1979) hypothesis states that "the level of L2 competence that a bilingual child attains is partially a function of the type of competence the child has developed in L1 at the time when intensive exposure to L2 begins" (p.23). If a bilingual child has failed to develop strong vocabulary concepts in the first language (or mother tongue), it would be unlikely that this child
would acquire academic competence in the second language during her/his schooling years.

The line of thought of effectiveness in the first language concept knowledge influencing second language development was formed in the interdependence theory. According to the interdependence hypothesis (Cummins, 1979, 1984, 1989; Cummins & Swain, 1986), learning a second language should be facilitated from the first language particularly with respect to literacy related skills. Different languages are separated from each other because of different surface aspects such as vocabulary, pronunciation, and grammar, but there is an underlying cognitive/academic proficiency which is common across languages. This "common underlying proficiency" makes possible the transfer of cognitive/academic or literacy-related skills across languages (Cummins, 1984). The term "literacy" or "academic" is being used here to refer to skills that involve concept knowledge that children acquire in school settings. Subject matter knowledge, reading strategies, writing composition skills, and so on they already developed through the medium of L1 transfer and thus become available to L2 (Cummins, 1984).

When children come from different language backgrounds, for example, initial instruction in the native (first) language allows them to acquire the skills and knowledge covered in the curriculum of the language. While they are learning a second language (for example, English), they can make use of skills, knowledge, and experiences they already have; many literacy skills acquired in the first language can be transferred to the new language. Hence, time spent learning in the native language is not time that is lost with respect to the coverage of subject matter in the new language of the school.
In writing, for example, concepts of writing are complex and involve not only the mental activity - including the planning and organising - but also the knowledge of the linguistic and structural rules in writing a text. When bilingual children master these writing skills in their first language, particularly in a formal setting, it is possible to transfer them to L2 writing composition when they are learning in their second language.

Turning to the issue of how L1 literacy might support L2 literacy, Cummins' (1979, 1984, 1991) theory of a "common underlying proficiency" has been supported by studies, notably by those dealing with two related languages within the European language family. Examples include French and English in Canada (Cummins, 1984; Cummins & Swain, 1986; Snow, Cancino and Gonzaler, 1987; Swain & Lapkin, 1982), and Spanish and English in the United States (Diaz, 1983; Hakuta & Diaz, 1985). It should be noted here that such findings may not generalise easily to linguistic minority students in Australian schools. An important question is whether or not this theory applies to bilingual education using two different languages like Persian (Farsi) and English. Is it feasible that the literacy skills from the first language could be transferred to a second language that does not utilize the same writing features, grammar, graphic conventions or even the same type of writing system as the children’s first language? This is one major question to be addressed in this thesis.

When children learn a second language in a social context where that second language (say, English) is spoken as the majority language, the context plays a major role in language acquisition. From a research perspective, considerable
attention needs to be directed towards the context in which language proficiency is developed.

Learners cannot learn a language without the help and collaboration of those who already speak it. In order to learn the target language, there must be opportunities for second language learners to come into contact with and communicate with target language members. Children's feelings about the target language group and their attitudes about learning English in school might influence their achievement in learning the new language. Some studies have indicated that children who are successful in second language acquisition have favourable attitudes towards the target language community (Gardner & Smythe, 1975; Lambert, 1974). Several research studies have related attitudinal and motivational variables to different aspects of second language acquisition suggesting that these social-psychological variables play an important role in second language acquisition (Gardner, 1983, 1985; Gardner & Lambert, 1972; Lambert & Tucker, 1972).

From a social psychological view, this thesis draws on the basic theory of Gardner (1985). According to this perspective, motivation has been found to be one of the most relevant factors involved in second language acquisition. The concept of motivation is multi-faceted and involves motivational intensity, desire and attitudes towards learning the language (Gardner, 1985). Attitude appears to be strictly tied up with motivational dynamics, and to work powerfully in acquisition of a second language. Hence, the present study also included as a second major dimension-the relationships between learners' attitudes and motivation and their proficiency in second language learning.
While it is reasonable to expect from previous research that each of the variables - first language proficiency and attitudes/motivations, plays a key role in learning a second language (English), there has been comparatively little work to see whether the relationship between children’s first language and their second language writing skills holds in an Australian context. Even less is known about the relationship between a language such as Farsi, with a different writing system and English.

The present study is based on Iranian students learning English in Sydney, Australia. The use of Iranian students will provide a stringent test of the interdependence hypothesis because of the considerable differences between English and Persian (Farsi) languages. Also, the social psychological view is tested by the use of students with a very different background culture and different attitudes and motivation.

1.2 First language literacy

The picture that emerges from research evidence (elaborated in Chapter 2) shows that children’s second language development relies strongly on first language proficiency. According to this view, when the children’s first language develops, particularly in a school setting, exposure to L2 is likely to result in high levels of L2 competence at no cost to L1 competence (Cummins, 1978, 1984). This view also suggests that devoting some time to developing literacy and background knowledge in the first language can help make
subsequent contributions to literacy development in the second language and thus can aid both second language acquisition and subject matter learning.

According to the interdependence hypothesis of Cummins (1979, 1991), when a language operation such as writing has been acquired in one language, the same operation is not reacquired in another language. This operation is simply applied in the second language. In other words, literacy concepts once learned and used, seem to transfer across languages.

In the current study, the questions of whether and how the development of academic skills in L1 facilitate performance in L2 are important issues not only of theoretical relevance in second language acquisition generally, but also because this instance includes different writing systems between the two languages (Persian and English).

Persian (Farsi) and English have dissimilar syntactic structures as well as orthographies. Farsi uses the Arabic script with four additional letters. Persian is written from right to left; each of the 32 letters of the alphabet has three shapes depending on whether it occurs at the beginning, middle or end of a word; 22 of the letters are distinguished from one another only by the presence or absence of a dot or stroke; and not all vowels are represented in the script.

If there is a particular advantage in literacy in the first language associated with second language proficiency, will this advantage still be evident when there is considerable dissimilarity between the two language structures as is the case for Persian and English? In other words, is the factor of literacy
competency in L1 critical regardless of differences between the two systems of writing?

The present study will explore the relationship between academic achievement in L2 (English) and that in L1 (Persian). Specifically, students' proficiency in writing skills in both Persian (their L1) and English (their L2) will be assessed. Children's English writing will be compared with their Farsi writing using several types of indicators to measure writing skills in both languages. The results of this comparison will provide evidence that enables a judgment on whether L1 proficiency is related to success in L2 writing skills.

1.3 Social-Psychological Perspective

While many studies have examined the importance of first language literacy in second language acquisition, a considerable amount of research has been directed at investigating the influence of affective variables on second language acquisition. Of the many factors that have been investigated, attitudinal and motivational variables have received the most attention, and a considerable amount of research has demonstrated a significant relationship between these and second language achievement (Gardner, 1985; Gardner & Lambert, 1972)

From a social psychological view, students who hold favourable attitudes towards various aspects of second language study, such as attitudes towards
the second language culture and the learning situation, and who are motivated to do well in their second language study, are most likely to succeed.

One of the important factors within the environment of the second language that may influence its acquisition is parental roles. Parents usually play a role in the development of proficiency in a second language, even when they are not aware of their influence. Based on the available evidence, particularly in terms of Gardner's (1985) concepts of active and passive roles in learning a second language (see Chapter 3), this study seeks to explore whether key socio-psychological factors affect academic achievement in English, specifically written English. The socio-psychological variables included are parents' attitudes to children's acquisition of English proficiency and also children's motivation to be proficient in the second language. The study will examine relationships between English language proficiency and home attitudes towards the target language community. It also investigates whether parents who have positive attitudes towards their children's education and hence play an active role in encouraging their children to do well (Gardner, 1985, 1991), have children who tend to do better in second language writing.

1.4 Purpose of this study

In Australian regular schools, there are many children who come from other language backgrounds and learn English as a second language. A major
theme emerging from previous research is that bilingual children's experience of literacy in a first language is an important factor in their academic success in second language acquisition. This line of thought is reflected in the "interdependence hypothesis" which emphasised the interdependence of performance on first and second language tasks. Thus, Cummins (1979, 1984, 1989) argued that the use of certain functions of language and the development of literacy in the first language are important factors in success in a school situation where instruction is in a second language. It should be noted that most of the previous studies dealt with closely two related languages within the European language family. Persian and English, while both derived from the Indo-European language family, are quite dissimilar in terms of syntactic structures as well as writing systems. And, very little is known about Persian bilingual students whose first language is not English.

The present study sought to answer some questions about the relationship between first and second language proficiency where children's language background (Persian) is not close to their second language (English). The study is an important one because there are many children with very different language backgrounds enrolled in Australia schools. Little is known, however, about the role played by their first language literacy in their second language development.

A second aim of this study was to understand the social and cultural pressures affecting second language learners in situations where different social values are attached to their languages. This study sought to explore what attitudinal factors affected academic writing in English. The socio-
cultural variables examined were parents' attitudes to the children's acquisition of English writing and also the children's attitudes and motivation to second language learning.

In order to investigate two relatively distinct research problems - how a certain kind of literacy knowledge in a first language facilitates performance in second language, particularly in academic writing skills, and the relation between attitudes toward learning the second language and proficiency in that language - the following research questions were generated:

1- To what extent is first language literacy (in Persian / Farsi) related to proficiency in second language literacy (English)? In particular, how is the English writing performance of Iranian elementary school children related to their Persian writing skills?

2- What is the influence of motivation and attitudes on the acquisition of English writing competence?

To explicate the relationship between these variables and second language writing competence, these questions have been developed into a hypothesised model described in the following section.
1.5 The hypothesised model in learning a second language

As noted above, writing performance in a second language appears to be largely dependent on first (native) language writing ability. Recent research using reading and writing as measures of second language proficiency tend to show that first language writing ability is a very important variable in second language literacy and writing achievement in particular (Canale, Frenette and Belanger, 1988; Cummins, Swain, Nakajima, Handscombe, Green and Tran 1984; Jones and Tetroe, 1987; Lanauze and Snow, 1989; Ostler, 1987). In addition, researchers such as Gardner (1979, 1985, 1991), Gardner and Lambert (1972), Gardner and Smythe (1975), Garate and Iragui (1993), Ip Lau Chun (1985) have demonstrated that attitudinal and motivational variables also have an important influence on second language learning.

The present study draws upon theoretical perspectives of Cummins' (1979, 1991) interdependence theory and Gardner's (1985) socio-educational model of language learning, in an attempt to predict the second language writing proficiency of students in a bilingual context. As mentioned earlier, Cummins' interdependence hypothesis suggests that first and second language academic skills are interdependent across languages; Gardner's theory emphasizes the role of attitude/motivational factors on second language acquisition.

The major purpose of the present study was to examine the role of first language writing skills in second language learning. For reasons explained in Chapter 2 Section 4, this study focused in particular on writing achievement.
Because second language learning is also affected by both learners' and parents' attitudes and motivation, the influence of attitudes and motivation variables on the acquisition of English writing proficiency is also studied. Although the relationship between second language proficiency and attitude-motivational factors has been well documented, particularly with respect to academic aspects of a second language (Gardner, 1985; Gardner & Lambert, 1972), the influence of intelligence and length of residence on students' English writing skills also need to be considered. It must be assumed that the time students spend in the Australian context, particularly in an Australian education context, will affect their English writing skills. Also, as described by (Diaz, 1983; Genesee & Hamayan, 1980;) students' second language learning seems to be affected by their intelligence. In the present study, intelligence and length of residence will be investigated in the model and used as control variables (as necessary) when examining the impact of the primary variables.

For the present study, the overall model (see Figure 1.1) uses five categories of potential predictors of second language writing skills. Second language writing skills form the dependent variable. First language writing ability, students' attitudes and motivation, and parental influence form the independent or predictor variables. General intelligence and length of residence are examined as predictors and then used as control variables in assessing the impact of the remaining predictor variables.

In this study, second language writing skills as a dependent variable, comprise linguistic, holistic, and technical indicators (Figure 1.1). The linguistic indicators as one reliable indicator of writing development consist of numbers of words, numbers of simple and complex sentences, and T-units in
students' writing tasks (Chapter 2). Holistic schema refer to developing an idea through an essay, its structural features, and the number of ideas generated by students. Finally, technical skills refer to the usual aspects of language structure like spelling, punctuation, and grammatical correctness.

The study uses similar operational definitions (linguistic, holistic, and technical) to measure first language writing skills, as shown in Figure 1.1.

In the model, motivation refers to the characteristics of students' desires to learn the second language (AL) and the efforts (EF) they expend towards the achievement of that goal. Although attitudes are seen as providing support for motivation in second language study, in this model, attitudes are defined as students' attitudes towards Australians (OZ), integrative (IG) and instrumental (IS) orientations, and also students' perceptions of parental encouragement (PE). These variables and their operational definitions are discussed in detail in Chapter 3.

Another aspect of the model which has received little attention from investigators is the influence of parents on second language acquisition. However, there is some evidence of a relationship between parental attitudes and students' attitudes and also their achievement in second language learning (Gardner, 1985; Gardner & Lambert, 1972). In this model, parental influence is divided into two variables: parental passive role (PR) and parental active role (AR) (see Chapter 3).

The last variables included in this model are Intelligence (IQ) and length of residence (LOR). English language proficiency in this context is likely to be
influenced by different variables such as intelligence and length of residence. In the present study, intelligence (IQ) refers to the students' general ability to learn and was measured using the Raven's Progressive Matrices Test (see Chapter 4). While it was assumed that there is a positive relationship between second language acquisition and intelligence, this study used Raven's non-verbal test as a control variable to assess students' general intelligence. Length of residence (LOR) refers to the period of living permanently in Australia. According to Cummins (1981, 1984), LOR is an important factor in the acquisition of a second language. He also found that the effects of LOR tend to diminish after living for five years in a bilingual context (for immigrant students). In the present study, the Iranian students had lived in Australia from one to five years and most for more than three years.

As indicated by the broken line in the model connecting intelligence and length of residence to second language writing skills, the role of these two variables in the present study was that of control variables.

Thus, as Figure 1.1 illustrates, the study examined the relationship between first and second language writing skills as well as the role of attitude/motivational variables on second language acquisition. The broad implications of the findings from this study are considered in the final chapter (Chapter 8).
Chapter 2

BILINGUALISM, SECOND LANGUAGE PROFICIENCY:
THE ROLE OF FIRST LANGUAGE IN SECOND LANGUAGE ACQUISITION

2.1 Introduction

During the past three or four decades, the study of bilingualism and language proficiency has been most usefully framed within the body of theory and research on children's learning second language. In addition, research studies have shown that bilingual children who have maintained their native language and enhanced it with literacy knowledge are likely to show increased proficiency in a second language. More specifically, a number of studies have addressed the transfer of first language writing skills to second language writing proficiency.

The purpose of this chapter is to review significant research and theory in the area of bilingualism, second language proficiency, and the role of first
language on second language acquisition, particularly in the domain of children's writing at the primary school level.

The present chapter is divided into four sections. The first section is concerned with literature on bilingualism and cognitive function, and highlights studies which examine the relationship between bilingualism and intelligence. The second section focuses on second language proficiency, in particular, differences between linguistic proficiency and academic proficiency in the second language. The results of this section lead to a third section in which the notion of the "Interdependence Hypothesis" is defined and discussed in terms of its application to the current study. In the final section, there is a review of research and explication of the theory that identified issues relating to the process of second language writing and its relationship to first language writing.

2.2 Bilingualism and cognitive functions

Most of the studies dealing with bilingualism throughout recent decades have concentrated on cognitive development with different measures of cognitive performance and with different samples of bilingual children. The purpose of this section is to review studies which have investigated the relationships between bilingualism and cognitive functioning, namely, relationships between bilingualism and intelligence, and metalinguistic awareness and to outline the implications of these findings for the current study.
The term "bilingualism" has been used in different ways among researchers and theoreticians. There are many definitions of bilingualism based on linguistics, psychology and psycho-linguistics. At a linguistic level, McNamara (1967) defined a bilingual person as one who possesses at least one of the language skills (speaking, writing, listening, reading) even to a minimal degree in a second language. Oksaar (1971) defined bilingualism as a situation in which an individual can use both languages as a means of communication in most situations, while Collisen (1974) termed "bilingual" those people who use two languages ranging from the ability to use a few functional words of a second language to being equally fluent in the two languages. The term "bilingualism" on the simplest linguistic level means the ability to understand or produce meaningful utterances which contain semantic, syntactic, lexical, and phonemic components in a second language (Lindholm, 1980).

Besides the above definitions of bilingualism, there are many social and psychological factors which lie behind the linguistic parameters associated with bilingualism. While the linguistic structure of the language is a main criterion for bilingualism, the social function is another one (Hakuta & Garcia, 1989; Skutnabb-Kangas, 1988).

The relationships between bilingualism and cognitive development have been debated in the literature and has given rise to some controversy. Some have argued that bilingualism had a negative effect on cognitive development and others have argued that bilingualism may enhance cognitive growth.
Although most of studies done before the 1960s indicated that there was a negative relationship between bilingualism and cognitive functions, the majority of these studies had serious methodological defects. They had showed that bilingual children suffered from a language handicap when measured by verbal tests of intelligence or academic performance (see review by Diaz, 1983). In fact, many of the early studies failed to control for group differences in socioeconomic status between bilingual and monolingual samples, and also in some studies, the degree of bilingualism was determined by the nationality of parents or the family names (Hakuta, 1986; Romaine, 1989). Furthermore, societal level criteria were used for immigrant status, such as having a foreign last name (see Diaz, 1983). More than half the children who became bilingual in the United State of America belonged to families from the unskilled labour group (Hakuta, 1986). The main point emerging from such studies was that using social rather than linguistic criteria, led to the conclusion that bilingualism could be harmful to the child's mental development.

In 1962, for the first time in the bilingualism literature, Peal and Lambert (1962) presented empirical data showing a positive influence of bilingualism on children's cognitive ability. Their findings indicated that "balanced bilingual" children (those who were equally fluent in both languages) at ten-years-old showed a higher level of verbal and non-verbal intelligence than monolingual children matched on social class background and sex. Their bilingual sample included only "balanced" bilingual, that is, children who had similar and age-appropriate abilities in their two languages.
Being bilingual has also been shown in the literature to have some advantages over being monolingual. Because bilingual children have two referent symbols for most referents and forces them to have alternative means for the expression of a given idea. As Ben-Zeev (1977a) noted, they become aware that there is a connection between an idea and its means of expression. In two studies involving middle-class Hebrew-English bilingual children and lower-class Spanish-English bilingual children, Ben-Zeev (1977a, 1977b) suggested that bilingual children developed an analytic strategy towards language to counter interference between their two languages. When it occur, the interference between the two languages caused the child to develop strategies which accelerated linguistic and cognitive development.

In some more recent studies, (Cummins 1978, 1979, 1991; Skutnabb-Kangas, 1981; Toukomaa & Skutnabb-Kangas, 1977), it has been suggested that there may be threshold levels of linguistic competence which bilingual children must achieve in their two languages in order to avoid cognitive disadvantages and allow bilingualism to benefit their cognitive functioning.

In fact, the threshold hypothesis assumes that children must attain a certain minimum or threshold level of competence in a second language for bilingualism to positively influence cognitive progress. Similarly, if bilingual children attain only a very low level of competence in the second (or first) language, the interaction with the environment through that language, is likely to be limited (Cummins, 1979). In describing this theory, it is necessary to mention that those children who have attained a very high level of competence in both their languages belong to the group that shows positive effects of bilingualism. Those children who have reached native competence
in one language (mother tongue), but with less command of the second language, will show neither positive nor negative effects. The negative cognitive effects are related to low levels of competence in both languages, termed "semilingualism" or limited bilingualism. It is assumed that lower threshold levels of bilingual competence in a language may be inadequate for effective interaction with an educational environment using that language. This phenomenon refers to the inability to speak proficiently any language, whether it is the mother tongue (first language) or the second language. According to Cummins (1979), the positive effects of bilingualism might occur only after the children have attained a certain threshold of competence in the second language.

If bilingualism enhances the development of cognitive abilities, a positive relation between degree of bilingualism and such abilities should be expected within a bilingual sample. The majority of studies in this field have looked only at children who are fully proficient (or balanced bilinguals) in both languages. For the first time, Diaz (1985) measured the effects of bilingualism on bilingual children who varied in their degree of second language proficiency. The relation between bilingualism and cognitive ability was examined separately for groups possessing relatively low and high second language proficiency. Findings from this study indicated that the degree of bilingualism is a strong predictor of cognitive variability for children of relatively low second language proficiency. In other words, the positive cognitive effects of bilingualism occur early in the process of becoming bilingual and do not require a high level of bilingual proficiency. Diaz's findings indicated that in both kindergarten and first grade, the degree of bilingualism predicts a significant amount of the cognitive abilities for
children of low second language proficiency. This result suggested that the degree of bilingualism would predict significant cognitive ability only before a certain level of second language proficiency has been achieved.

In summary, much of the recent research has supported the hypothesis that child bilingualism can positively influence cognitive development in terms of increased mental flexibility, divergent modes of thinking and responding, and enhanced strategies for dealing with language.

In general, recent studies are better designed than the earlier studies which reported negative findings. Many of early studies failed to control for group differences in socio-economic status between bilingual and monolingual samples. In most cases, bilingual children from poor backgrounds were compared with monolingual children from higher social classes. The recent studies which reported positive findings have matched bilingual and monolingual groups on IQ and socio-economic status.

In the literature, cognitive ability has usually been assessed by linguistic skills tests or verbal and non-verbal IQ tests. In the following section the effects of general intelligence on bilingualism and relationships between bilingualism and metalinguistic awareness will be discussed. Issues concerning the relationship between bilingualism and metalinguistic awareness will not be directly implicated in the current study. Nevertheless, metalinguistic awareness is considered in this section because of its indirect role in the current study.
2.2.1 General intelligence and bilingualism

The growing body of research on bilingualism has highlighted the positive relationships between bilingualism and cognitive development. Using intelligence tests as a means for assessing cognitive function is normal for researchers. Some of them use intelligence as a dependent variable while in other cases the same test is used as a control variable, leading to difficulty in generalising the results across studies.

One difficulty in interpreting the results of using intelligence in language studies is that researchers have used different tests, both verbal and nonverbal, as dependent measures. For example, Peal and Lambert (1962) used several measures of verbal and nonverbal intelligence to compare ten-year-old balanced French/English bilinguals with monolinguals and found that bilingual children were better on nonverbal tests particularly in concept formation or symbolic flexibility. They explained the findings as follows.

People who learn to use two languages have two symbols for every subject. From an early age, bilinguals may be forced to conceptualise environmental events in terms of their general properties without reliance on their linguistic symbols....This ability to think in terms of abstract concepts and relations, independent of the actual word, apparently is required in the symbolic reorganisation type tests (Peal & Lambert, 1962. p. 14).

Peal and Lambert (1962) after factor analysing their data, noted an advantage for bilinguals on non-verbal tests that required the recognition and manipulation of symbols. Diaz (1983) after reviewing Peal and Lambert's
study, suggested that because bilingual children have unique linguistic experience, they are able to perform at a superior level in nonverbal tests.

A relationship between bilingualism and increased development in general intelligence verbal skills has been established in a number of studies. Some research has shown that using verbal intelligence tests plays an important role in second language learning, particularly when children's instruction is in a formal settings. Genesee and Hamayan (1980) pointed out that children who learn a second language in an immersion situation (where instruction begins with the second language in grade two and three and develops gradually along with the first language exposure to children) or in a bilingual classroom where the emphasis of instruction is not analytic, their intelligence scores correlate less with second language learning than in a traditional setting. In fact, it seems that in a traditional classroom, children are taught in a more analytical way than in a bilingual or immersion program. In supporting Genesee and Hamayan, Carroll's (1981) survey showed that "verbal intelligence is more extensively required in the more formal courses taught in high school, college, and university than it is in more audio-lingually and practically oriented courses" (p. 106).

A well-known example of bilinguals' superiority on nonverbal tasks was provided by Ben-Zeev (1977a). In two studies involving middle-class Hebrew-English bilingual children and lower-class Spanish-English bilingual children, Ben-Zeev (1977a, 1977b) reported that in comparison with monolingual children, bilingual children performed better on non-verbal tasks which required perceptual analysis. The bilingual children in Ben Zeev's (1977b) study performed better than monolingual group on certain aspects of a matrix
transposition task. No group differences were found, however, on the rearrangement of figures in the matrix. The two comparison groups also performed similarly on the Raven's progressive matrices. In summary, bilinguals in this study showed cognitive advantages only in measures that were directly related to linguistic ability and on the verbal aspects of the matrix transformation task.

After reviewing twelve studies, Larter and Cheng (1984) pointed out that in spite of some limitations, statistical results based on various tests showed that the intellectual functioning of bilingual and monolingual elementary school children frequently did not differ. However, in cases where statistical differences were found, the bilingual children were more often the superior group over the monolinguals.

There are arguments among educators about using conventional intelligence tests with children from ethnic and cultural minority backgrounds (McLaughlin, 1985). Trueba (1991) discussed this matter from a cultural perspective, stating that intelligence is not the ability to score high in tests based on problem solving, but it is an ability to follow one's cultural goals. In many educational contexts, the dangers of cultural and linguistic bias are often assumed to have been overcome when minority bilingual children have been exposed to the dominant language and culture and acquired some level of proficiency in that language.

Although recent research studies have shown a positive relationship between bilingualism and some aspects of cognitive ability, it is not clear whether bilingualism fosters cognitive development or whether the more
intellectually gifted children become the most proficient language learners. Peal and Lambert (1962) pointed out that "It is not possible to state from the present study whether the more intelligent child became bilingual or whether bilingualism aided his intellectual development" (p.20). In reviewing this matter, Reynolds (1991) argued as well that perhaps more intellectually gifted children become more linguistically proficient or perhaps the reverse is true. This issue is still an unanswered question in research studies. Reynolds (1991) suggested that the central question we should be asking ourselves is not whether bilingualism affects cognitive performance or whether the reverse is true, but whether there is a relationship at all.

In summary, it can be said that non-verbal intelligence tests seem to have advantages in assessing bilingual children. The present study aims to shed light on the role of non-verbal intelligence as a mediator variable in second language learning, particularly in a writing skills of bilingual children.

2.2.2 Metalinguistic awareness and bilingualism

One of the issues concerning bilingualism is the relationship between bilingualism and metalinguistic awareness. In studies relevant to bilingualism, metalinguistic awareness refers to the ability to analyse and control linguistic output objectively, such as understanding the arbitrariness of word-referent relations and to correct syntactical violations. Bilingual children who are literate in two languages seem to be able to analyse of linguistic forms and control the processing required to solve metalinguistic
problems. As Vygotsky (1992) pointed out, because bilingual children can express the same thought in different languages, "the child learns to use his language as one particular system among many, to view its phenomena under more general categories, and this leads to an awareness of his linguistic operation" (Vygotsky, 1992:196).

In recent studies, for example, Cummins (1978) reported on Irish children's (grades three and six) awareness of the arbitrary nature of word-referent relationships. Children in this study came from homes where both Irish and English were spoken but all children received formal school instruction in Irish. Both bilinguals and monolinguals were similar in socioeconomic status and IQ. A task investigated children's awareness of the arbitrariness of language; children were asked whether names of objects could be interchanged. Children were asked to give reasons for their answers. Fluent bilinguals outperformed monolingual and non-fluent subjects in tests dealing with some but not all of these aspects of linguistic awareness. The bilingual children at both grade levels did better with all the statements. Hence, Cummins believed that bilingual children had a greater awareness of the arbitrary nature of word-referent relationship and were better able to analyse certain kinds of linguistic statements. Overall, this study seems to show that bilingualism does promote higher-level verbal skill development.

Results from studies by Ben-Zeev (1977a, 1977b) appear consistent with Cummins' findings in showing that, while bilingual subjects have better developed analytical skills in dealing with language related tasks, they do not necessarily have a better command of the semantic aspects of language. In two separate investigations, one dealing with Hebrew and English and the other
with Spanish and English, she found that bilingual children generally performed better than monolinguals on cognitive and linguistic measures requiring structural analysis and manipulation. But they performed less well on semantic structure of the language.

Recent studies of metalinguistic abilities have indicated an important difference between tasks that need an analysis of language knowledge and tasks that need to control linguistic processing (Bialystok, 1986a). Some metalinguistic tasks such as grammatical judgement require clear analysis of language knowledge. Some tasks, on the other hand, require a certain degree of control of linguistic processing such as "the ability to switch back and forth between form and meaning" (p. 499). In Bialystok's two studies (1986a, 1988), bilingual children performed better than monolingual children in grammatical judgements of sentences that were grammatically correct but had no clear meanings. The results of these studies indicated that children who were older and more literate scored higher on the task related to the analysis of linguistic knowledge. Children who were bilingual, regardless of age or literacy, scored higher than monolingual children on the tasks demanding higher levels of control of processing.

Using a "within bilingual" design, Hakuta and Diaz (1985) examined metalinguistic awareness and non-verbal intelligence in a group of Puerto Rican school children in kindergarten and grade one in a bilingual education program. All children came from poor home backgrounds. The findings indicated that metalinguistic awareness was strongly related to native language ability, and that the degree of bilingualism had an effect on non-verbal intelligence.
It is important to note that the finding that metalinguistic development and bilingualism are mutually facilitative, an aspect often observed in balanced language speakers or children who were proficient in a second language, and often in bilingual groups who were not from minority language groups. Being fluent in a second language on the one hand, and being a member of a majority group on the other hand, are two aspects that must be considered in research studies.

The results of the above studies (Ben-Zeev, 1977a; Cummins, 1978) suggest that poorer social circumstances of the community in which bilingual children live may have reduced the cognitive and linguistic benefits that bilingualism normally offers. The children studied came from lower socio-economic level families residing in an urban area (in United States), as Ben-Zeev observed. How much this might have affected their language development is not known, but these children generally reported a preference for English although they claimed that Spanish (their first language) was the language they spoke better. This early shift in linguistic preference suggests that for these children, the learning of English will result eventually in what Lambert (1977) has described as "subtractive bilingualism", a condition that offers few of the benefits of knowing two languages that "additive bilingualism" offers.

Becoming bilingual in using literature is described as either an additive (positive), and a subtractive (negative) process. Children in studies which have reported cognitive advantages associated with bilingualism, come from an "additive" situation, that is, they have attained a high level of proficiency in both languages. Lambert (1975, 1977) used the term additive bilingualism to
refer to the situation where children's first language is societally dominant and prestigious and in no danger of replacement by a second language. The bilingual children add another socially relevant language to their repertoire at no cost to their first language competence. For example, majority Swedish children who learn French at school or English speaking children in Canada who learn French in an immersion program usually have a high status first language in no danger of being replaced by the language they are learning in the additive situation. Skutnabb-Kangas (1981) argued that in immersion programs where the process of learning a second language takes place in a positive and supportive climate, bilingual children need not feel ashamed of their own language and origins. In contrast, many of the studies with negative results described earlier involved bilingual subjects whose first language was a minority, non-prestigious language gradually being replaced by a more prestigious second language. Lambert (1975, 1977) used the term subtractive bilingualism to refer to a minority situation where the learning of the second language is associated with loss of the first language and its replacement by the more prestigious second language. Minority children who learn a second language in submersion programs usually have a low-status mother tongue which is constantly in danger of being replaced by the more prestigious majority language (Reynolds, 1991). When the first language is lost as the second is learnt, the process is a costly one, both to the children and their families and to the society (Wong Fillmore, 1991).

This distinction between additive and subtractive bilingualism is an important one to keep in mind in considering the outcome of educational programs for language minority students. Many of them continue to have problems in school even after they seem to have learned English. When these

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students do not speak English, it is easy to explain the difficulties they have in school, and it is clear what needs to be done to help them. But when their difficulties persist even after they apparently know English, it is not easy to explain what the problem is, or to know what to do about it. Many of these children are fluent in face to face English language but they lack the level of skills needed to deal with the academic uses of that language in school. A detailed discussion about this issue will be reviewed in the next section.

The experience of becoming bilingual in a subtractive context is common for young children in Australian educational institutions, according to Makin, Campbell, and Diaz (1995). In this situation, languages other than English are gradually replaced by English, because the dominant language in schools and society is English. Although many minority bilingual children are successful in learning English at school, their bilingualism is often limited because their first (home) language is not supported in the mainstream educational settings. This issue will be discussed in a later section on the importance of mother tongue literacy.

In summary, during the last three decades, many studies have demonstrated the positive influences of bilingualism on children’s cognitive and linguistic abilities. Although the cognitive advantages of bilingualism have been shown in many situations, the positive findings appears to be connected to additive bilingual situations where the second language is added to the first language.

Indeed, as several studies have shown, the positive association between bilingualism and cognitive function tends to be associated with situations
where both the L1 and L2 have perceived social and economic values. Also, it is important to note that the effects of bilingualism should be looked at separately in children of low and high second language abilities.

2.3 Second Language proficiency

Language proficiency may be described as involving both linguistic competence and communicative competence. With respect to linguistic competence, learning language is concerned with the child's acquisition of phonological, syntactic and semantic structures, or in other words, issues concerning grammatical competence. Language proficiency consists primarily of four broad language skills: listening, speaking, writing, and reading skills in which there is not necessarily any connection between the ability in one skill area and that in others. For example, a bilingual child may have good pronunciation, but weak grammatical knowledge in one of the languages, or vice versa. A bilingual child might have good skills in all the formal linguistic aspects of production and perception (in both written and spoken), but be unable to control the stylistic range. Baker (1993) argued that these four basic language skills do not exist in black and white terms. Between black and white there is also a wide range of colours. He suggested that the four basic abilities can be refined into sub-scales and dimensions: there are skills within skills.
While linguistic competence refers to structure of language itself, communicative competence is concerned with knowledge of language as a whole, and how to use this knowledge in actual situations. In learning second language, particularly in social context, bilinguals not only should acquire the knowledge of language structure such as grammar, but also they must be learning how to use this knowledge in target language settings.

In the following section, firstly, the concept of language proficiency (which is closely related to linguistic theory) will be discussed in terms of both communicative competence (see 2.3.1) and academic competence (see 2.3.2). Then, the relationships between language proficiency and academic achievement in bilingual contexts will be discussed in the context of a theoretical framework (see 2.3.3).

2.3.1 Second Language proficiency: Communicative competence

In recent years, researchers and educators have emphasised communicative competence rather than grammatical competence in assessing second language proficiency. Linguistic competence as a language ability is assessed usually out of the context of real life communications, while communicative competence is assessed in social settings.

The term "communicative competence" has been used in many different ways. Sometimes it means the ability to convey a message regardless of the linguistic structure. To some, it refers to a set of abilities including knowledge
of linguistic, sociolinguistic, and discourse rules (Cummins & Swain, 1986). Communicative competence has to do with rules of grammar and also rules for use of language in a social setting (Romaine, 1989). In particular, communicative competence refers to knowledge and skills which involve the language code that speakers use, and also language appropriate in any given situation. It also involves having appropriate socio-cultural schemata, which enable the learner to use the communicative forms (Saville-Troike, 1984). From the point of view of communicative competence, a conceptual framework must include at least grammatical competence, sociolinguistic competence and discourse competence (Cummins & Swain, 1986).

According to Cummins and Swain (1986), the components of communicative competence consist of grammatical, sociolinguistic and discourse tasks. Grammatical competence was defined as the knowledge of vocabulary, rules of word formation, pronunciation, spelling, and sentence formation. Sociolinguistic competence was defined as the ability to produce and recognise socially appropriate language within a given sociolinguistic context. And finally, discourse competence referred to the ability to arrange ideas in logical sequence and organise meanings effectively.

The description of communicative competence outlined below comes from one large scale research project by Cummins and Swain (1986) concerning the development of bilingual proficiency in immersion programs. Their data came from children whose first language was English, and who were learning French as a second language in grade 6 French immersion program in Canada who were compared with ESL students who were infrequent users of the second language outside of school. Within the theoretical description used, it
seemed that the structure of students' language proficiency was related directly to the nature of the input received. The second language input for the target group of students was from teachers who were native-speakers, peers who were non-native speakers, and experiences with literacy activities in the target language.

The grammatical tasks used to assess students' language in Cummins and Swain (1986) study were divided into oral production tasks (consisting of a structural interview which embeds standardised questions in conversation) and written production tasks (which involve topics designed to use the past and present tenses through two narrations and letters). The results for the grammatical oral production and written production tasks indicated that native speakers (French language) scored significantly higher than immersion students. Immersion students, in spite of doing well in all tasks, had not acquired native-like abilities in the grammatical domain.

With respect to sociolinguistic tasks, Cummins and Swain (1986) designed both oral and written production such as presenting a series of slides and audio accompaniment describing the situation, and writing notes in which the students assumed the roles of familiar adults. The aim of these tasks was to assess the students' abilities to use formal sociolinguistic markers of politeness that were appropriate in the content of students' letters. The results of this stage showed that in those items of sociolinguistic performance concerned with politeness terms, immersion students performed as well as the native speakers. But in those categories where grammatical knowledge was essential, immersion students performed at a lower level than native speakers. In general, native speakers performed significantly better on the sociolinguistic
tasks than the immersion students. Cummins and Swain (1986) pointed out that this is a good example of the dependence of some aspects of sociolinguistic performance on grammatical knowledge (p. 128).

In the case of oral production in assessing discourse competence, the results showed that the native speakers were rated significantly higher than the immersion students, and in the case of written production, the native speakers were rated significantly lower than immersion students. Generally, the native speakers performed better than the immersion students on the oral story retelling task, but did not differ in their performance on the written production tasks.

The results of this study for grade 6 French immersion students indicated that, in spite of seven years of comprehensible input in the second language situation, their grammatical performance was not equivalent to that of native speakers.

It seems that immersion students did not become native-speakers in their productive competency, not because their comprehensible input was limited, but because their comprehensible output was limited. Cummins and Swain (1986) suggested that the students' limitation had two causes: one was that students had not had many opportunities to use the second language in the classroom setting; the other concerned their spoken language. Because these children were successful in spoken language in the classroom context, there was no push for them to analyse the grammar of the second language.
The research discussed in this section illustrated that grammatical competence is different from other aspects of communicative competence (sociolinguistic and discourse). Care, however, should be taken in this generalising the results of study to other contexts. These conclusions are based on specific spoken and written languages (English and French) collected in a specific situation (immersion program) in Canada. It should be noted that there is a close linguistic relationship between French and English. Can similar results be expected if the linguistic relationship is as distant and the orthographies are as different as between English and Farsi? It is necessary to examine these findings in applications to other languages in different educational and social contexts.

2.3.2 Second Language proficiency: Academic achievement

As mentioned earlier in this chapter, second language proficiency in terms of communicative competence refers to a set of abilities including both knowledge of linguistic and socio-linguistic competence. Issues about how language proficiency is related to academic achievement are discussed in following section.

From a psycholinguistic point of view, there is a strong relationship between language proficiency and academic and cognitive variables existing across all four basic linguistic dimensions (Oller, 1981). Oller’s (1981) research suggested that different linguistic skills tend to correlate moderately well. Thus, for assessing the second language proficiency, teachers and educators should use
integrative tests of language proficiency (e.g., cloze, dictation) which he claimed are more useful than discrete tests. Furthermore, he pointed out that there is only one factor of global language proficiency: "the evidence shows that there are both global and componential aspects of language proficiency. The perfect theory of the right mix of general and specific components, however, has not been found—and probably will never be agreed on" (Oller, 1981, p. 710). Oller's concept of a global language factor is based on quantitative testing. Oller suggested to teachers that they should be teaching in every area of the curriculum in all of the four language skills for both first and second languages. The implications of Oller's theory have been widely accepted by educators and teachers, and his claim for one global language factor has been used as a starting point for a distinction between two different language abilities.

Apart from the relationships between second language proficiency and academic competence, it has been proposed that there is a connection between language proficiency and educational success. Basically, language proficiency is viewed as a prerequisite to logical thinking and educational progress. As illustrated by Labov (1973), there is a relationship between language proficiency and conceptual thinking. Labov pointed out that working class and minority children who had deficient second language proficiency also had deficiencies in conceptual abilities. Because of the complex conceptual operations involved in language comprehension and production, language and conceptual development are closely related.

Oller's and Labov's theories, do not provide an adequate theoretical basis for conceptualising the relationship between language proficiency and academic
achievement. It is necessary to distinguish between dimensions of language proficiency which are embedded within conversational and academic aspects discussed in the next section.

Research from both Europe and North America suggests that bilingual students often develop fluency in conversational skills in the school context in their second language but that their academic skills do not develop to grade norms (Cummins, 1984; Skutnabb-Kangas & Cummins, 1988; Skutnabb-Kangas & Toukomaa, 1976).

Skutnabb-Kangas and Toukomaa (1976) proposed a difference between surface fluency and academically related aspects of language competence. Surface fluency consists of the ability to converse simply, for example, in the shop or street. Surface fluency may be acquired quickly over two or three years by second language learners. Academic skills in a second language in terms of reading and writing may take from five to seven years to develop to levels equivalent to those of native speakers.

As Cummins (1989) pointed out, there is a misconception by some psychologists and educators that the "language proficiency" required for second language face-to-face communication is no different from that required for performance on second language cognitive- academic tasks. Children who speak a standard English (as a second language), are often thought equal to native speakers of the language. In fact, conversational skills are often interpreted as a validation of proficiency in a language (Cummins, 1989).
In bilingual contexts, like Canada and the United States, bilingual students who have developed fluent English in face to face communication situations are often transferred from a bilingual programs to regular English program classrooms, due to this wrong assumption about the nature of "language proficiency" and its relationship to achievement and cognitive skills. Because these students are often fluent in English (as a second language); their poor academic performance in terms of reading and writing does not appear in the short term (Cummins, 1989).

It is important to clarify how face to face communicative skills in a first or second language context are related to oral language abilities and yet may not be fluent for academic proficiency in terms of reading and writing skills.

As mentioned earlier, Oller (1981) and Labov (1973) explained different aspects of language proficiency. What is needed is a theoretical attempt to describe the differences between the linguistic demands of the school and those of the face to face situations outside the school.

Many researchers and theorists have argued that it is necessary to distinguish between the processing of language in informal situations and the processing of language required in academic situations. Donaldson (1978), for example, distinguished between "embedded" and "disembodied" processes from a developmental perspective and was concerned with the implications of this for children's adjustment to formal schooling. She pointed out that children's early thought processes and use of language develop within a "flow of meaningful context". Olson (1977) distinguished between "utterance" and "text" and attributed the development of analytic modes of thinking,
especially to the acquisition of literacy skills in school. Olsen's distinction between utterance and text is useful for differences between the linguistic demands of formal education and those of face to face situations outside school. Similar distinctions have been made by Snow (1983) and Cummins (1984).

Snow (1983), for example, distinguished between contextualized (oral language) and decontextualized (written language) and argued that exposure to decontextualized language use at home is an important factor in academic success at school.

Cummins (1986, 1989, 1991) argued there are distinctions between conversational interactions (context-embedded) and academic tasks (context-reduced) and suggested that some educators do not realise the differences between these two aspects of language proficiency. He theorised that every conversational interaction can be characterized as context-embedded. Academic tasks can be characterized as context-reduced.

A distinction between these two levels (conversational and academic) of language proficiency is important as it involves disputing Oller's (1982) "global language proficiency". Cummins (1984) has expressed this distinction in terms of Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP). While BICS would occur in face to face "context embedded" situations, CALP is said to occur in "context reduced" academic situations. The concept of the BICS/CALP distinction is further developed in the context-embedded/context-reduced distinction identified by Cummins (1991) and discussed below.
Briefly, the distinction between BICS and CALP has been shown by the image of an iceberg (Cummins, 1983, 1984) to describe both the first and second language acquisition processes. Above the surface are language skills such as comprehension and speaking. Under the surface are the skills of analysis and synthesis. Above the surface are the language skills of pronunciation, vocabulary and grammar. Below the surface are the deeper language skills of meaning and creative composition.

Figure 2.1 The Linguistic Interdependence Model (adapted from Cummins (1989, p.45).
According to Cummins (1984, 1989), surface aspects of different languages are clearly separate, but knowledge which is obtained in one language transfers to another language. When children learn any knowledge in their native language, it is transferred to another, so that children do not need to learn in a second language what they have learned in a first. This applies to subject matter like science and maths, and also skills in reading and writing.

Academic language proficiency in Cummins' opinion refers to both reading and writing abilities and to content areas where students are required to use their language abilities for learning, for example, science or social studies. Second language learners who obtain academic language proficiency also need to be able to manipulate language without the support of interpersonal communicative settings (Cummins, 1986).

In general, while the distinction between the two aspects of language proficiency provides an understanding and explanation of existing research (Cummins, 1984; Fillmore, 1979; Snow & Hoefnagel-Hohle, 1978), it lacks empirical support. Martin-Jones and Romaine (1986) expressed doubts about it being possible to test the distinction. It seems that the distinction becomes difficult to operationalise in research. There is no attempt to test this distinction in the current study. However, it is assumed that this distinction must to be clarified to understand and explain the process of second language learning in informal everyday situations and the second language processing required in most academic situations, particularly with two languages which vary in surface features.
2.3.3 Theoretical framework

As discussed earlier in this chapter, for better understanding of the developmental relationships between L1 and L2 proficiency, it is necessary to distinguish between language proficiency and academic achievement in bilingual contexts, namely, between the processing of language in informal everyday situations and the language processing required in most academic situations. Canale (1983), for example, distinguished between grammatical, socio-linguistic, discourse, and strategic competencies. In spite of the usefulness of this framework for some purposes, Canale (1983) stated that the relationships of these competencies with each other and with academic achievement were not clear in empirical studies.

Cummins (1986) presented a theoretical framework in which there was an attempt to clarify the nature of "language proficiency" by showing a relationship between academic performance and communicative competence in both first and second language acquisition settings.

According to this framework, Cummins (1980, 1984, 1986, 1989) tried to integrate the distinction between conversational and academic aspects of language proficiency into a general theoretical model. This framework also tried to integrate an earlier distinction between basic interpersonal communicative skills (BICS) and cognitive/academic language proficiency (CALP) (Cummins, 1980). This distinction is similar to the distinction proposed by Olson and Donaldson that was described earlier in which academic failure is often wrongly attributed by educators and teachers when they do not understand this distinction.
Cummins (1986, 1989, 1991) argued there are distinctions between conversational interactions (context-embedded) and academic tasks (context-reduced) and suggested that some educators do not realise the differences between these two aspects of language proficiency. He theorised that every conversational interaction can be characterized as context-embedded. Academic tasks are usually characterized as context-reduced.

Figure 2.2 presents "language proficiency" along two continua. In simple words, the horizontal line shows the extent of the context dependency of language ranging from "context-embedded" on the left, to "context-reduced" on the right. Context-embedded refers to informal interpersonal interactions where the meaning of the message relies on uses in the everyday world, usually outside the classroom. Context-reduced communication, on the other hand, derives from very precise and explicit linguistic messages which usually reflect the communication in the formal setting such as the classroom. An example of context embedded communication would be when two children are able to use each other's languages to communicate well by gestures, non-verbal interaction and bodily movements. An example of context reduced communication is the precision of meaning in the vocabulary of many books in the classroom setting.

The vertical continuum shows the developmental aspects of communicative proficiency in terms of the degree of cognitive activity involved. At the upper end of the vertical line would be a person who has mastered the linguistic tools required for limited cognitive activity. At the lower part of the continuum, the communicative tools have not been mastered and need more cognitive activity to employ them. When people master linguistic
tasks, their task completion moves from the lowest part to the top of the vertical continuum.

To encounter linguistic tasks (e.g., the phonology of L1) requires cognitive involvement for young children, and therefore these tasks would be placed in quadrant B. However, as mastery of these skills develops, tasks move from B to A, because the tasks become automated and cognitively undemanding.

This process is the same for both first and second language learners.

Figure 2.2  Range of contextual support and degree of cognitive involvement in communicative activities. (Cummins & Swain, 1986, p. 153)
Examples of tasks which may fall in quadrant D include reading proficiency and verbal intellectual skills (Cummins & Swain, 1986).

According to this framework, everyday communication tends to be identified as being context-embedded and cognitively undemanding while classroom activities are more often context-reduced and cognitively demanding. Although the transfer of language skills across language is usually understood to involve academic skills or context-reduced aspects of language, Cummins, Swain, Nakajima, Handscombe, Green & Tran (1984) presented evidence suggesting that some context-embedded aspects of language proficiency may be interdependent across languages.

Cummins' framework (1986), provides a means of discussing issues concerning the development of language proficiency in educational situations. In fact, in the Cummins' framework, the context-embedded/context-reduced and cognitively undemanding/cognitively demanding continua are not the only dimensions that demonstrate aspects of language proficiency or communicative competence. However, it is suggested that these dimensions are relevant to the relationships between language proficiency and educational achievement.

This framework may be helpful in predicting differences between the cognitive and academic factors involved in learning in both language learning situations. For example, language skills acquired in a context-embedded setting in a first language may be acquired in a context-reduced situation in second language acquisition situations.
One of the clear implications of this framework is the relationship between literacy activities in the home and the acquisition of reading at school (Wells, 1981). Bilingual children who are living in situations where access to literacy material in the first language is available have a better chance of being successful at reading tests in that language at school (Snow, Cancino, & Gonzalez, 1987).

Bilingual children who have the opportunity to manipulate language in cognitively demanding and decontextualized situations, are often successful in academic tasks at school. Snow (1983) pointed out that bilingual children who are not successful in academic tasks (such as reading and writing) at school may not be disadvantaged simply by language differences but by differences in the ways they use the languages.

In summary, one part of this section described the relationship between cognitive functioning and language proficiency. It is important to note that language proficiency is developed through language use embedded in meaningful contexts and that the ability to manipulate cognitively demanding/context-reduced tasks grows. The distinction between conversational and academic aspects of language proficiency was highlighted.

The main point of this section was to describe the distinction between conversational aspects of language proficiency and academic aspects of second language proficiency. The theoretical framework introduced here helps us to understand the main point of the interdependence hypothesis outlined in the following section. The assumption of this hypothesis is related to those aspects of language which are at the context-reduced end of the continuum.
The hypothesis assumes that these aspects (academic/cognitive) are interdependent across languages.

In general, the present framework suggests that dimensions such as context-embedded and context-reduced and cognitively undemanding and demanding situations are related to the relationships between language proficiency and educational achievement. This highlights the importance of instruction in both languages. The main point therefore, arising from above discussion is that children's proficiency in a second language, particularly, in context-reduced or in academic domain can be predicted by their first language skills. It is assumed that for bilingual children who are instructed in one language (first or second), academic and literacy skills in that language are transferable to another one.

The evolution of Cummins' theoretical framework over the years has been the subject of discussion in many papers. Baral (1987), for example, argued that Cummins' framework seems logical, but its empirical validity has not yet been clearly established. He pointed out that it would not be surprising if this theory did not explaining all aspects of learning a second language. There are many factors which can influence second language learning, particularly, the quality of second language instruction, and the diversity of linguistic and cultural groups for which bilingual instruction is being provided.
2.4 The relationship between bilingual children's two languages: the Developmental Interdependence Hypothesis

As discussed earlier, there are at least two dimensions to language proficiency: one that is concerned with those aspects of proficiency that occur in face-to-face natural communication, and one that reflects the aspects of proficiency involved in academic/cognitive functioning. According to the research review, there are distinctions between conversational skills and language proficiency required for academic skills. While conversational aspects of language proficiency are different in each language as Cummins (1987) mentioned, first and second language academic skills are interdependent. In other words, although the surface aspects (e.g., pronunciation, spelling) of any language, for example, Chinese and English or Farsi and English are different, there is an underlying cognitive/academic proficiency which is common across languages. This "common underlying proficiency" makes possible the transfer of deeper level cognitive skills across languages. According to Cummins (1981, 1984, 1986, 1987), transfer is much more likely to happen from minority to majority languages in bilingual settings because of the exposure to literacy in the majority language (say English) and the strong social pressure to learn it. Cummins (1981) states the interdependence hypothesis as follows.

To the extent that instruction in Lx is effective in promoting proficiency in Lx, transfer of this proficiency to Ly will occur provided there is inadequate exposure to Ly (either in school or environment) and adequate motivation to learn Ly (p.29).
This hypothesis means that, for example, when a Persian bilingual child develops reading and writing skills in her or his first language, she/he is not just developing Persian (Farsi) skills, but also developing deeper concepts and linguistic proficiency that is available for transfer to the second language (English). In other words, aspects of the children's second language proficiency appears to be dependent on the level of competence in the first language.

According to this hypothesis, devoting some time to developing literacy and background knowledge in the first language can help make a subsequent contribution to literacy development in the second language and thus can aid both second language acquisition and subject matter learning. To clarify this issue, imagine two children with limited English proficiency who are entering the fourth grade in an English speaking country. Child A has learned some concepts in science in her first language and is performing at the grade level expectation in science. Child B has not had science instruction in the first language and is "behind" in that subject. Both are placed in the one class taught in English. Child A will not only learn more science, but also will acquire more English, because of previous instruction in the first language. It seems that because of the lack of instruction in Child’s B first language, she may not be able to be successful in science nor English. In fact, when a child learns one concept in her/his first language in a school setting, she/he might be able to transfer this concept to a second language without having to relearn the concept, as long as the relevant vocabulary in the second language is available (Hakuta, 1990).
2.4.1 Interdependence Hypothesis: research and theoretical support

A considerable amount of evidence supporting the interdependence hypothesis has been reviewed by Cummins (1983, 1984, 1986, 1991) and Cummins and Swain (1986). The results of evaluations of bilingual programs for both majority and minority students (in Canada and the United Stated) are consistent with predictions from the interdependence theory (see Cummins, 1983). The interdependence theory is also supported by data on immigrant students' L2 acquisition (e.g., Cummins, 1981).

Recent studies continue to support the interdependence hypothesis. Treger and Wong (1984) reported significant positive relationships between L1 achievement and English reading abilities (measured by Cloze tests) among both Hispanic and Chinese background elementary school students in Boston. They found that students above the grade norm in their first language reading tended to be above the grade norm for English reading. Snow, Cancino, Gonzalez, and Shriberg (1987), in a study involving about 150 English-French bilingual children, reported significant positive correlations between academic language skills in the two languages.

In series of studies in the U.S. attempting to show the importance of first language instruction on second language acquisition. Gonzalez (1986) compared reading skills of Hispanic immigrant children who were born and schooled in Mexico (at least two years schooling in Mexico before emigrating to the U.S.) with students born in Mexico who emigrated to the U.S. before beginning school. It was found that the Mexican-schooled group performed better on reading tasks than the group who began schooling in the United
States. Gonzalez concluded that academic achievement developed by Mexican-schooled students transferred to the acquisition of English academic skills.

A well-controlled study of cross-lingual relationships in writing development (Carlisle, 1986) reported that Hispanic students' rhetorical effectiveness in Spanish was a significant predictor of rhetorical effectiveness in English. Carlisle also reported that when controls for background factors were taken into account, Hispanic fourth and sixth grade students in a bilingual program performed significantly better on English writing productivity, syntactic maturity, and rhetorical effectiveness than did Hispanic students in a submersion program.

Evidence supporting the interdependence theory is consistent for reading tests across languages. Recently Bernhardt and Kamil (1995) found that L1 reading skills contributed to L2 reading performance in terms of the interdependence hypothesis among 186 adults native English speakers reading in English and Spanish. Their results indicated that first language reading ability is a very important variable in second language reading achievement.

Two longitudinal studies add strong support for the notion of the interdependence hypothesis. Ramirez (1985) studied 75 Hispanic elementary school students in Newark, New Jersey, enrolled in bilingual programs for three years. It was found that Spanish and English academic language scores loaded on one single factor over the three years of data collection. Ramirez
interpreted this factor as a cognitive/academic dimension that underlies students' conceptual development in both languages.

Similarly, Bamford and Mizokawa's (1992) longitudinal study of bilingual students' mathematics achievement and English language skills at a Spanish immersion program in U.S. supported the Cummins' hypothesis which predicts that the growth of skills in any one language will be reflected by corresponding development of the same abilities in a second language. Their data provided evidence of transfer of math skills from one language to another.

Perhaps strongest support for interdependence theory comes from European research undertaken by the German linguist, Jochen Rehbein (1984, cited in McLaughlin, 1986). He has shown that the degree of development of conceptual knowledge in Turkish children living in Germany is related to the degree of coordination achieved in the developmental interrelationships between the child's two languages and that conceptual information and discourse strategies acquired in the first language transfer to the second.

Similar support comes from Linda and Lofgren's (1988) studies in Scandinavia, where they found a positive relationship between L1 (Finnish) and L2 (Swedish) verbal academic proficiency. Students who were instructed primarily in Finnish in the elementary school performed as well in Swedish as those students whose instruction had been in Swedish. In other words, in the second language acquisition process, there was a moderate degree of interdependence between the first language (Finnish) and the second language (Swedish) on verbal academic proficiency.
Finally, Cummins, Harley, Swain, and Allen (1990) have reported highly significant correlations for written grammatical, discourse and socio-linguistic skills in Portuguese (L1) and English (L2) among Portuguese grade seven students in Toronto. They found, however, that cross-language correlations for oral skills were not significant. In another study, Cummins et al. (1984) found significant cross-linguistic relationships for reading and writing skills among Japanese background students in Toronto. The same pattern of interdependence has also been reported in other recent studies (e.g., Bankston & Zhou, 1995; Bernhardt & Kamil, 1995; Cziko, 1992; Hakuta, 1990; Langer et al., 1990; Smith, 1982).

In conclusion, research evidence has shown consistent support for the interdependence hypothesis in studies investigating a variety of studies on bilingual education, bilingual reading and writing, and using different methodologies in a wide variety of socio-cultural contexts. The picture that emerges from this research evidence illustrates that the use of certain functions of language and the development of vocabulary and concepts in the first language are important determinants of success in a school situation where instruction is in a second language. When children learn one concept in a first language, they acquire its meaning and do not need to acquire its again in the second language. They really need a new label, not a new concept. The first language conceptual knowledge, apparently facilitates the acquisition of L2 literacy and subject matter content. "The more knowledge in the first language, the more capable of understanding and internalizing in the second language" (Cummins, 1989, p. 49).
The claim that learning a second language may have an effect on cognitive ability, is based on the assumption that language is a central part of cognitive activity. From a Vygotskian perspective, language is critical in enhancing thought processes. According to Vygotsky’s theory (1992), bilingualism can have profound effects on cognitive processes, depending on society’s attitudes and actions toward the phenomenon.

Vygotsky’s view is also supported by research such as that of Skutnabb-Kangas and Toukomma (1976) in a study of Finnish immigrant students who are studying in a Swedish school. Their findings indicated that at ten years bilingual students who had mastered their first language were better than their younger counterparts in learning Swedish as a second language. In fact, Skutnabb-K Kangas’ subjects were more conscious of using the first language and could develop cognitive and linguistic strategies for acquisition of the second language (Wertsch, 1985).

2.5 Summary and conclusions

The major theme emerging from the research evidence and related theories is that bilingual children who have maintained their native language and enhanced it with literacy knowledge, will most likely show increased proficiency in a second language. This was the main point introduced in the previous section. Evidence relating to how L1 and L2 skills are related to one another was also reviewed.
Cummins' interdependence hypothesis tells us that the literacy-related aspects of a bilingual’s proficiency in the first and second languages are seen as common or interdependent across languages. That is, the skills involved in reading and writing are thought to transfer across languages. When children have well developed skills in the first language, particularly in a formal setting, they are likely to attain proficiency in a second language. Once again, this is a reminder of how vital the role of instruction is at this critical time in providing support for children's academic skills both in first and second languages. The review of studies regarding bilingual academic development shows that spending instructional time through the minority language (say, the first language) will not result in lower levels of academic performance in the majority (second) language. Rather, the instructional program in the first language leads to greater effectiveness in developing academic skills in the majority language. This is because, at deeper levels of conceptual and academic functioning, there is a considerable overlap or interdependence across languages (Cummins, 1989). Conceptual knowledge developed in one language helps to make input in the other language comprehensible.

The interdependence hypothesis has come to play an important role in current research. Further testing of this hypothesis in the Australian context, with children learning a language quite different from their mother tongue will help us clarify issues concerning the students who study and maintain their own first language and acquire second language (English) in regular school.
The following section provides a more specific review of the writing of bilingual children in the light of the interdependence theory. Research on the process of second language writing and its relationship to L1 writing is then reviewed.

2.6 Writing and second language development

The research literature on second language development during the past decades has focused mainly on oral language with less consideration given to writing ability. Recently research has focused on writing in a second language, although, very little of it describes the writing of children. Clearly, there is a need for more inquiry on the nature of first language literacy and second language proficiency on the development of second language writing skills.

With respect to the interdependence theory discussed in the previous section, the purpose of this section is to review research and theory in the area of writing, particularly second language writing in elementary school grades.

This section is divided into three major parts. The first part (2.6.1) discusses the process of writing, focusing in particular on writing in a social context. The second part (2.6.2) reviews research about relationships between writing and oral language. In the third part (2.6.3), there is a review of research that identifies issues relating to the process of second language writing and its
relationship to L1 writing. These findings are important because of the argument that some skills may be transferable from L1 to L2. This is the basis for the current study.

2.6.1 Process of language writing

When a writer creates text she/he is usually trying to achieve meaning and purpose by choosing explicit words and sentences and also appropriate writing strategies. For good writing, a writer should follow conventional rules and logical reasoning. Writing for a meaning and purpose require mental engagement. Thus, writing is thinking; the process leads the writer to choose an appropriate starting point, develop an idea in a meaningful form, and present the outcomes of thought as written text. Scribner and Cole (1981) pointed out that mastery of written language affects not only the content of thought but also the processes of thinking - how we classify, reason, and remember.

Writing is at one and the same time a psychological process involving planning and predicting within linguistic structures and rules, while also being socially organised. As Edelsky (1985) stated, "written language is a psycho-sociolinguistic phenomenon" (p. 59).

There are two distinct ways to approach the study of writing: one is to study the written product and the other is to study the writing activity (process). Study of the written product has emphasised language and linguistic
structures in students' writing (e.g., Hunt, 1977 in using the T-Unit; Mehan, 1979 in using syntactic complexity; Mosenthal, 1982 and Vann, 1980 in using syntactic maturity) as well as more general characteristics such as communicative effectiveness and other traits suggested by rhetorical theories (e.g., Carlisle, 1986; Lloyd-Jones, 1977). Study of writing activity has revealed aspects of writers' composing processes, particularly those which reflect their planning (e.g., Bereiter & Scardamalia, 1978, 1982; Flower & Hayes, 1981). The focus of these studies has been to identify how children acquire different writing processes in relation to different writing tasks.

In terms of the product, Vann (1980) suggested that syntactic length may function as a measure of writing language proficiency. This idea supported by a previous study in this field (Cooper, 1977).

Cooper (1983) also in another study, proposed that in good writing, the sentences should be related to each other. This connection is important because it provides the structural and semantic relations between words across sentences, from the link between specific words across sentences to abstract, global thematic and structural patterns. One relationship that is essential is that of cohesive ties across sentences.

At the activity level, according to Flower and Hayes (1981), writing is a complex process in which an idea is generalised, organised and produced. Hence, it requires a high level of mental activity to produce writing. During essay writing, good writers employ complex means to shape the composition. Writers employ planning strategies to determine content, organise it, and then set up goals and procedures for writing (Hayes & Flower, 1983). A major
part of writing for good writers is spent in developing global goals and ideas. Both the quality and quantity of these goals appear related to the ability of the writer.

Writing as a cognitive activity is seen to use specific kinds of writing knowledge that a writer has and is able to discover in constructing meaning and expressing ideas in writing. Frederiksen and Dominic (1981) suggested that the use of this knowledge requires different kinds of cognitive processes including: generating meaning, expressing meaning, selecting the better language form to express this meaning, and also reviewing and revising this meaning.

This idea was well expressed by Bereiter and Scardamalia (1983) when they discussed the writing process for novice writers:

For children first learning to write, the mechanics of the process clearly take up most of their mental capacity, and they have little left over to devote to such concerns as content. When we see some ten-year-olds laboring like engravers over their hand writing, we marvel that they are able to produce a sentence that holds together, let alone a sentence that continues a line of thought from the sentence before (p. 23).

In the act of writing, according to Hayes and Flower (1983), there are three elements that must interact with each other to produce a composition. First, there is the task environment that includes everything outside the writer’s skin, such as the audience and written text itself. Second, there is the writer’s knowledge of the topic and also the writer’s knowledge of writing plans, conventions, genre and rhetorical problems. It is important the writer be able
to draw from memory during the act of composing. The last one is the writing processes that are the major thinking processes that writers employ in complex ways during their writing. This consists of planning, translating, and reviewing. Planning is generating content, organising it, and setting up goals and procedures for writing. Before the writer starts to write she or he needs a form of mental activity, and thus planning acts as a thinking activity. Translating is the act of expressing the content of planning in a written essay. In this form, a writer is trying to produce and develop her or his idea in a meaningful statement. During this act, sometimes a writer has to go back to planning for the act of translating. Reviewing is the act of evaluation of what has been written and planned. Sometimes the writer has to revise a compositions when the evaluation of a text or a plan is negative. According to Hayes and Flower (1983), in writing an essay or composing, a good writer not only spends time in developing global goals for affecting readers, but also time in developing ideas and more specific goals and plans that guide the act of writing. Both the quality and quantity of these goals are related to the ability of the writer.

This description of the writing process has more recently been further elaborated by Bereiter and Scardamalia (1987). They explained two different modes of writing: knowledge-telling and knowledge-transforming. Knowledge-telling in simple words refers to language skills learned through ordinary social experience as occurs when, an idea comes to a writer's mind without prior planning. Knowledge-telling is easily available to the writer and involves the use of simple strategies to tell what they know about a topic. It requires no more planning or goal-setting than does ordinary conversation. Hence, this approach to writing is common among the elementary school
students due to its being a natural type of writing. Knowledge-transforming, on the other hand, is a cautious effort to engage in planning, processing knowledge, and often much problem-solving. Unlike knowledge-telling, knowledge-transforming needs metacognitive activities. People who use knowledge-transforming, according to Bereiter and Scardamalia (1987), actively rework their thought and are likely to consider not only changes in the text but also changes in what they want to say. Thus it is in this way that writing can play a role in the development of their knowledge.

How do non-native writers use knowledge in their written texts? This question is of importance to educators in bilingual settings or working with ESL (English as a Second Language) children in the regular classroom. Some research has indicated that bilingual children's written work is similar to that of monolingual children (Peyton, 1990). They "moved from drawing to writing; moved from reliance on copied sight words to sounding out words and using invented spelling, which gradually approximated conventional spelling; demonstrated knowledge of written conventions; elaborated on topics; and showed an awareness of audience" (p. 214). As bilingual children's writing gains proficiency, they are better able to integrate knowledge in writing and copy less verbatim from original sources (Peyton, 1990).

Researchers seem to agree that children's written expression emphasises writing as a socially grounded process. From a social practice perspective, writing is seen as a context-dependent practice (Edelsky, 1991). Writing occurs and develops through context. Children are influenced by peers and teachers and other social sources. According to Edelsky (1991), social factors have a
major role and affect children's development as writers. Some of these influences are close up and within a classroom such as the teacher's belief about children's capabilities, while others seem more distant but equally strong such as the politics outside the school walls.

The context outside the school, in particular family, activity has also the power to influence the children's writing. Hence, writing as social practice should be studied in context. Edelsky (1991) has emphasised that children's writing should be considered literacy-as-social-practice, as well as practices such as hypothesising, predicting, planning, and so on. "Writing always happens in messy, non-reproducible context. If we want to study it, we have to study that messy, context-dependent practice, not some neatened-up substitute" (pp. 40). Some aspects of children's writing like meaning-making, hypothesising, predicting, and planning never happen without a context.

According to Edelsky (1991), when bilingual children in a target language context, first see written English, for example,— in case of children who are studying English as a second language,— that language has strong associations with powerful socio-cultural domains like the educational establishment, commercial publishing, and the like, this language works as a tool for social uses. Obviously, this picture of language in a social context affects a second language learner's mind.

Some researchers have argued that written language is acquired through actual use, during interaction with others, in a social context. That is, the children's written language is shaped by other members of the society, by a culture, subject to social and historical constraints on how and for what it can
be used (Hudelson, 1991). "As oral language, what is being learned in written language are the systems of rules/conventions/constraints for exercising freedom within cultural bounds, for making one's own meanings for culturally possible purposes in particular situations" (p. 53). In fact, rules and convention in a culture are critical aspects of oral and written language acquisition.

Kaplan (1987) pointed out that students in ESL programs who were producing text, wrote essays which were different in many ways from the texts written by native speakers of English. This difference was originally considered to come from the rhetorical structure of language. But Kaplan proposed that the differences were derived from sociolinguistic constraints in each language. The native speaker knows better than the non-native speaker the circumstances in which the various forms may be used, and also recognises how to follow ways for writing a text. But the non-native speaker does not recognise the sociolinguistic constraints on those alternatives, and does not recognise what sorts of constraints a choice imposes on the text which follows.

Gundlach (1981) argued that the characteristics of a written text are influenced by the context in which it is written. He pointed out that children in elementary school tend to produce longer and more complex writing as they get older and gain more writing experience. The writing is not only related to age and skill, but also to the writer's aim, his/her sense of what is required, and personal reactions to the material at hand.
To describe the quality of students' writing across cultures and languages, Connor (1987) investigated students' writing of argumentative compositions with the aim of exploring strategy-building in a complex rhetorical situation. His findings indicated that "good" argumentative composition requires not so much keeping structure, but is an output of the writer's goals and plans.

In summary, in this part in relation to children's written language, two main points have been made. Firstly, writing should be seen as mental activity in which a writer employs activities such as planning, transcribing, and revising in writing a composition. Successful composition depends on the writer's ability to arrange it in a logical form. Secondly, the social context influences the content of the writer's composition as appropriate for their texts, particularly in a bilingual context where learners not only learn how to write a composition in a second language, but are also involved in the target language context and culture.

2.6.2 The relation between oral and written language

As mentioned in the previous section, the main differences between written language from native and non-native writers appears to come from the socio-linguistic constraints in each language context. The main question in this part is related to whether or not written text is different from spoken text in a bilingual context. In other words, what relationship is there between the
development of writing ability in a second language and the development of speaking within a bilingual social context?

Kaplan (1987), after reviewing studies in this field, pointed out that written text is different from spoken text in non-trivial ways. At a simple level, in oral communication, there are two way interactions with feedback leading to changes in the interaction. In written communication, immediate feedback is absent. In speech conditions, contact is extremely rapid, so rapid that it reduces and modifies the opportunity to plan. Written text, on the other hand, has few time limitations on its production. A written text is under the control of the writer. In spite of differences between oral and written language, there is some similarity between the two, according to Kaplan (1987). Written language like spoken language is concerned with giving information, but in written language information is more planned, more structured, and less immediate than in oral language. Furthermore, the oral and written language productions are dependent upon the same grammar and the same lexicon. Kaplan (1987) concluded that while oral and written language are interrelated, they cannot be viewed as mere extensions of each other. Thus, the study of written language should be separate from that of oral language. The study of written texts should consider the rhetorical structure as that evidence of different linguistic and cultural contexts.

Unlike the above studies, a few research studies have found evidence that oral language is related to writing performance. Kobayashi and Rinnert (1994) reported findings with Japanese university students enrolled in English composition classes which indicated that a positive relationship existed between speaking and writing in English. They analysed these data in the
light of the operations of language mechanism that is common in the two skills. That is, like second language speaking, second language writing requires syntactic processing of ideas in the second language. In fact, the oral fluency in the second language which is grammatical knowledge and the ability to use this knowledge for expressing the statements, is closely related to writing performance.

Other studies support the above hypothesis that children learn written language as they learn oral language. Edelsky and Jilbert (1985) reported that children tried generalising phonetic features of many sounds similar at the point of articulation. They pointed out that "children learn written language as they learn oral language" (p.60). According to Edelsky and Jilbert (1985), there is no necessary reason why a second language learner should achieve a certain level of oral fluency before she/he can productively learn to write in that language. In their study, Spanish bilingual children in 1st, 2nd, and 3rd grades in a bilingual program in the Southwest United Stated who avoided speaking English, performed well in written English.

According to Perrotta (1994), ESL learners are able to write in English before they have complete control over the oral and written systems of the English language.

In general, research studies have shown that in spite of the interrelation between written and spoken language, these two aspects of language are basically separate from each other. A more extensive review of research on the relationship between L1 and L2 writing processes is undertaken in the following section.
2.6.3 The process of second language writing and its relationship to L1 writing process

The interdependence principle, as discussed earlier in this chapter, proposes that literacy-related aspects of a bilingual's proficiency in L1 and L2 are held in a "common underlying proficiency" and is therefore interdependent across languages. Researchers have begun to accept the specific ways in which first and second language writing would show evidence of a common underlying proficiency. A number of studies in North America and Scandinavia support this view that bilingual school age learners who develop academic skills through their first language tend to develop similar skills in their second language (see Cummins, 1991).

More specifically, research on bilinguals writing in their first and second language has indicated a relationship between L1 and L2 writing skills (Canale, Frenette, & Belanger, 1988; Carlisle, 1986; Carson et al., 1990; Crerand, 1994; Lanouze & Snow, 1989).

As mentioned earlier, there are two approaches to the study of writing; one focuses on the process of writing and another emphasises the product. Traditionally, theory about second language composing assumed that the most important factors in second language writing concerned the product, or in other words, mostly involved grammatical accuracy. Recently researchers interested in the processes of language writing performance, have asked whether writing skills transfer and whether first language expertise can facilitate L2 writing performance. That is, can a good writer overcome low
proficiency in the second language because her/his L1 strategies compensate for a lack of L2 knowledge?

In syntactic maturity studies, at the product level, researchers have used T-unit analysis—as a basis for evaluating written output. To compare second language writers at different proficiency levels assumes that the T-unit measures can provide the same information on development when used with second language writers as they do when used with first language writers. Many studies have shown that as students get older, the average T-unit scores in their essays increase (older students write longer T-units than the younger students) (Hunt, 1965, 1970, 1977). Those conducted with students whose first language is other than English have produced similar findings. For example, Hunt (1977) reported the results of a study in which a rewrite passage was translated into a number of Asian and Pacific Island languages and indicated that older students wrote longer T-units than the younger students. That is, the T-unit has been an effective measure for showing that the development of syntactic maturity in writing is common across languages and cultures.

While syntactic maturity has been shown to be a suitable measure for school age bilingual children, it has also been a useful measure for adult second language learners. Vann (1980) studied a group of Arabic speaking adults who were studying English in the U.S., and found that the T-unit as a measure of syntactic maturity was a useful for adult bilinguals. His results indicated that for written data, the "error-free" T-unit, especially its mean length, appears to be the best indicator of adult foreign language proficiency.
Accordingly, Arthur (1980) found that measures of proportions of "error-free" T-units in texts correlate positively with proficiency measures.

T-unit length as a syntactic measure at the product level has been shown to be significant as a predictor of language writing proficiency. Kameen (1983) examined the relationship between 40 syntactic and holistic scores in 50 compositions written by adult ESL students in a university. Of the 50 papers, 25 had been rated as high and the other 25 had been rated as low. A statistical analysis of the relationship between the syntactic factors and the holistic scores indicated that 15 of the 40 factors were significant in discriminating between the good and poor papers. However, of these significant factors, the two most powerful were the length of the T-unit and the length of clauses. Other measures which have been found to be important as predictors in second language writing are words per sentences and words per clause.

Cross-sectional studies have also indicated that, as second language learners become more proficient, their writing tends towards improvement in spelling, punctuation, and lexical variety (Arthur, 1980).

At the process level, many aspects of the L1 and L2 writing process are similar when writing in first and second languages, for example, planning strategies (Jones & Tetroe, 1987), revising strategies (Hall, 1990), and non linear composing strategies (Zamel, 1983).

Research confirms that planning strategies transfer from L1 writing to L2. Jones and Tetroe (1987) hypothesised that there would be a relation between the pattern of planning in the two languages. Using real-time data from a
think-aloud proposal, Jones and Teroe compared the planning and goal-setting processes of six adults in their first proficient language (Spanish) with those in their second, less proficient language (English). Their findings indicated that the best planners in the first language, particularly those who planned abstractly in conventional tasks, would likely be best in the second language as well, and also there was strong, direct evidence for the transfer of first language skills to the second language.

The results of qualitative analysis of writing processes of seven case studies of English language students enrolled in a French language course, indicated that second language learners used a number of their first language techniques and strategies to facilitate the second language writing process (Crerand, 1994). Even students whose second language skills are limited can benefit from invention and exploration of ideas in their first language, especially in the planning stages (Kobayashi & Rinnert, 1994).

Taking another view, Cumming (1989, 1990, 1994) argued that writing ability and language proficiency are complementary but separate factors in the second language writing process. Cumming (1989) compared L2 writing proficiency with other measures of L2 proficiency and L1 writing proficiency. While L2 writing proficiency was correlated with both level of ESL proficiency and L1 composing ability, these two factors functioned independently. Cumming (1989) found that the use of problem solving strategies while composing correlated with individuals' levels of writing expertise in L1, but not with level of L2 proficiency. Another study by Cumming (1990) of French Canadian adult subjects supported this view that "people simply enacted
composing strategies, characteristic of their mother tongue expertise, in their second language” (p. 122).

Confirming the above result, Jimenez et al. (1995) reported that to be a good reader in a second language, vocabulary awareness was not sufficient. It was also important to transfer the best strategies from L1 to L2. Cumming (1994) pointed out that the learners’ mother-tongue knowledge can function effectively to guide their writing in their second language, even at very advanced levels of second language proficiency. According to Cumming, students' first language proved to be an important resource in their continual processes of decision making while writing.

The role of instruction in L2 might influence students' writing competence. Lavin (1994) investigated the writing composition in college English spoken students who studied French as a foreign language. His finding indicated that first language literacy and second language proficiency have an impact on second language writing. In addition, the result of this study showed the influence of the instructional context on French writing.

Acquisition of a second language in a foreign language classroom is different from learning in a target language context. Berman (1994), for example found that learners ability to transfer writing skills from their L1 to English depended on their English grammatical proficiency in a situation where children acquire a second language as a foreign language. She announced that one must be careful not to generalise findings made in the second language context to the foreign language classroom.
Diverse linguistic and cultural groups might be taking different developmental paths to L2 writing proficiency. It must be noted that, in a majority of studies discussed above, native and target language learners shared the same script, particularly the same writing system. Little is known about the ways in which writing or learning to write in English, say, might constitute a different order of task for other language speakers such as Persian, where the writing script is very different. This problem needs to be investigated through research in which subjects' first language does not share the same scripts as their second language.

The second language writers in each period have reflected the cultural background style of their time. Ostler (1987) argued that the impact of L1 Arabic culture on L2 rhetoric writing in English should be considered. Their writing, even when they are writing in English and under test conditions, still reflects the preference for their Arabic culture.

Differences between first and second language writers have been noted with regard to transitions and "contextualising devices" (for example, "This story is about...") used to orient readers (Atari, 1984; Ostler, 1987). For example, Arabic adult subjects have been reported by both Atari (1984) and Ostler (1987) to begin essays with a global statement that may be judged by Anglophone readers as irrelevant to the main thesis of the text. Thus, the style of Arabic students writing in English has been shown to be different from that of English students' writing. These results pose a further question. Can similar results from the interdependence hypothesis be found in comparing writing development by language groups whose first language has a very different script from that in English?
2.7 Summary and conclusion

This section on writing proficiency has presented an overview of the process of writing in bilingual children, reviewing in particular studies that have addressed questions relating to the contexts affecting learning in different writing environments, the relation between writing and other language skills, and the role of first language writing skills in facilitating second language writing performance.

The literature suggests that for better performance in children's second language writing, it would be valuable to provide opportunities for enhancing their first language writing environment. There is little information about bilingual children whose first language writing systems differ significantly from those in their second language. Yet, if first language writing performance both in process and product levels is to provide a vehicle for the development of second language writing, it is important to know about languages whose writing systems are quite different from systems in the target language. Hence, while research has suggested that bilingual children's writing in L1 and L2 may have a "common underlying proficiency" which is interdependent across languages, little is known about this "underlying proficiency" with two contrasting languages.

There has been comparatively little work on the relationship between children's first language and second language literacy in Australia. Australia's position is different from bilingual education in many other countries. Unlike Canada, but like the USA and Sweden, Australia has a single and dominant language-English- used widely in the economy, socially,
and politically. While English is a formal and official language in Australia, languages of minority groups are accepted at some institutional levels (e.g., Saturday School) and are officially supported and promoted through both radio and television.

A main question for the current study is whether or not dissimilarity between writing systems in English (as a dominant language in Australia) and Farsi (as the language of a minority group) can provide a convincing and sustainable interpretation of the interdependence hypothesis.
Chapter 3

SOCIAL-PSYCHOLOGICAL PERSPECTIVES IN LEARNING SECOND LANGUAGE

3.1 Introduction

In the previous chapter it has been argued that children's first language literacy appears to be determinant of success in second language acquisition in a school setting. In other words, literacy concepts once learned and used seem to transfer across languages. While many of the studies examined the importance of first language literacy on second language acquisition, a considerable amount of research has been directed at investigating the influence of affective variables on learning a second language. This line of inquiry has led to the view that achievement in second language learning is linked with affective factors which, being socio-cultural in nature, are largely reflections of environmental influences.
With respect to this socio-psychological viewpoint, those students who hold favourable attitudes towards various aspects of language study such as attitudes towards the second language context and the learning situation, and who are motivated to do well in their second language study, are most likely to succeed (Garate & Iragui, 1993; Gardner, 1979, 1983, 1985; Gardner & Lambert, 1972; Krashen, 1981).

Based on a socio-psychological perspective, Gardner and Lambert (1972) proposed a conceptualisation of the second language learning process which, while acknowledging the role of variables such as language aptitude, emphasised the important role of social psychological factors such as attitudes and motivation. They argued that learning a second language is more than merely acquiring a new skill such as vocabulary and grammar. It also involves acquiring and incorporating the various cultural aspects that any language reflects. As a result, second language acquisition needs to be understood within a social psychological framework (Gardner, 1977, 1979, 1985, 1991; Gardner & Lambert, 1972).

Researchers have investigated learner attitudes towards target language communities and motivation to learn a target language as major components of the affective component in second language learning (Gardner, 1983, 1985; Gardner & Lambert, 1972, 1974; Schumann, 1978).

In this chapter, literature on the role of attitude and motivation in second language learning is reviewed with the aim of highlighting the effects of students' attitudes and motivation to learning English as a second language in the target language context. The chapter extends discussion of how social
variables affect the complexity of second language acquisition by considering, as well, the parental role in children's second language learning. In this way, the socio-psychological model of Gardner's theory is used as one explanation for success in second language learning. Findings from the present study should shed light on the role of motivational and attitudinal factors in second language acquisition, and the extent to which these factors are significant sources of variation in language-learning success, particularly for students who learn English as a second language in host country where their culture and background are quite different from native speakers of the target language.

3.2 Students' attitudes and motivation in learning a second language

Motivational factors are believed to be important to achievement in learning another language. Attitude appears to be entwined with motivational dynamics, and to work most powerfully in acquisition of a second language. Attitude seems to be central in motivational complexity.

In an attempt to understand the role of attitudes and motivation in learning a second language, literature considering the concept of two different types of attitudes: attitudes toward learning the language, and attitudes toward the other language community were examined first. This was complemented by an examination of literature on motivational factors for learning a second language and their impact on achievement.
3.2.1 Attitudes toward learning a second language

The concept of attitude seems to be multi-dimensional. Attitudes can be considered as a specific or general dimension (Gardner, 1985). The specific attitudinal concept, for example, "attitudes toward learning English" can be seen to be less general than "interest in foreign languages" as a general concept. In the case of attitudes toward learning English, a specific activity is described, while interest in foreign languages could involve many activities such as learning them, speaking them and hearing them.

Attitudes can also be considered in terms of their relevance to second language achievement. For example, some attitudes are more relevant to the task of learning a second language than others. Thus, it is reasonable to expect that some aspects of attitude are more related to second language achievement than others.

In spite of the fact that the nature and type of attitude scales have varied from study to study, the research evidence supports the idea that a measure of attitudes toward learning a second language can be related to achievement in that language. In the school situation, it is likely that, attitudes toward second language are related to achievement in that language due to nature of language rather than attitudes toward other school subject such as history or math. Some research studies have shown that students' attitudes towards second language learning differ from attitudes towards other subject matter at school. For example, Duckworth and Entwistle (1974) developed a technique for studying attitudes toward many school subjects. They studied the attitudes of 312 second year and 292 fifth year grammar school students in
England toward different school subject areas. They found that there was a difference in the levels of correlation between groups of subjects. The correlation values were low for subjects like history and biology, while for subjects like French (as a second language), the average value was high.

A number of studies have indicated that attitudes toward learning a second language become less positive when children grow up (Gardner & Smythe, 1975). Although the reasons for this are not clear, it is not reasonable to attribute this to an increase in age alone. It is possible more experience of learning a second language makes students more critical of attitudes toward learning another language, or as Gardner (1985) noted, more experience with the language probably lets students see variation in success and failure in learning second language which could be generalised to attitudes toward learning a second language.

Attitudes toward learning a second language have been investigated to relation to factors such as sudent's gender. In spite of evidence that girls tend to demonstrate significantly more positive attitudes than do boys (Burstall, 1975; Gardner & Smythe, 1975), it does not seem reasonable to attribute differences simply to gender. Children's attitudes quite probably are affected by a number of environmental factors, some of which may be gender related.

Oller and his colleagues have investigated a series of studies in various places, using different subjects, to show whether the learning setting has any impact on learning orientation. Oller, Hudson, and Liu (1977) studied Chinese speaking foreign students studying in American universities and Mexican American women in a vocational school in New Mexico who were
studying English in a second language setting. They found that "Chinese students were apparently instrumentally motivated to learn English in order to gain certain material benefits, and they were not particularly negative towards American people. By contrast, the Mexican Americans appeared to be anti-integrative and to have an instrumental orientation towards Anglo-American culture" (p. 182). Oller et al. (1977) explained that because the Chinese subjects came from relatively well-off back-grounds and went to the United States by choice, while the Mexican Americans could easily identify themselves with the colonised and suppressed minority of Chicanos of the Southwest.

These findings indicated that it is insufficient to say that the two groups of subjects were similar in that they all studied English in a second language setting. They had different types of contact and different perceptions of the target language group. This is the concept of inter-group relationship that will be discussed later in this section.

A further indication of the relationship between socio-cultural variables such as group status and attitudes variables comes from Ip Lau Chun (1985) who examined the relationship between ethno-linguistic vitality factors and attitudinal/motivational factors with 195 bilingual elementary school students from five different schools in Hong Kong in which both Chinese and English were medium instruction. They were asked to fill out in Chinese the Hong Kong version of the two ethno-linguistic questionnaires and an attitude and motivation battery. Their English language proficiency was measured by a English standard cloze test. His results indicated that the students perceived Westerners and their language, English, to have higher
social status than Hong Kong Chinese and their language, Cantonese. Ip Lau Chun concluded that students wished to learn English to gain economic advantage through knowledge of this second language, that is they wanted to learn English for pragmatic reasons.

It is possible too, that attainment in the second language causes positive or negative attitudes towards learning English. For advanced learners, for example, who have already overcome many of difficulties in the process of learning a second language, attained second language proficiency might influence the learning orientation.

3.2.2 Attitudes toward the second language community

A learner's attitudes to the language speakers and target language community appear to be important attitudinal factors in learning a second language. One of the factors that has been found to have a determining influence on the second language learning process, according to Gardner (1979), is attitude towards the target language society. He argued that the social context can influence the second language acquisition process not only by shaping an individual's attitudes, but also by promoting or interfering with an individual's acquisition of a second language (Gardner, 1977; 1979). For example, if the attitudes of a community towards learning a second language are favourable, then this could enhance the role of the students' attitudes and motivational to learning a second language. In fact, though research
concerned with the relationship between achievement in the second language and learners' attitudes towards the second language community has obtained variable results. Gardner (1979), for example in his examination of the second language learning process between Anglophone students studying French in unilingual and bilingual settings, noted that social context factors influenced second language acquisition, where there were differences in the relative importance of the attitudes associated with motivation in both settings. For example, the correlation between attitudes towards the learning situation and motivation was less strong in a bilingual settings than in an unilingual setting.

Few studies have investigated whether exposure to a second language and cultural information about the other group promote favourable attitudes toward that group. One study that did look at cross cultural attitudes (Gardner and Smythe, 1975) found that attitudes toward the French Canadian community became more favourable the more years students spent studying French. They also demonstrated that students who dropped out of second language study had a priori less favourable attitudes toward the other language community than those who continued language study. In the case of attitudes toward learning French, Gardner and Smythe (1975) suggested that attitudes toward other ethnic communities tended to be independent of intelligence and language aptitude.

It may also be that, success in learning a second language leads to more positive attitudes toward the target language group. Herman (1980) tested this hypothesis with a sample of 750 German children learning English as a foreign language. One group had five years of English, and the others were
beginners. She found that the group with more experience with the language showed significantly more positive attitudes toward the target culture than did the beginners. Furthermore, although there was no consistent pattern of integrative orientation toward the target group among the high proficiency learners, the lower proficiency group showed significantly more prejudice.

A number of studies have pointed to the importance of attitudes for the efficient learning of another language and for the intercultural contacts of people who have learned that language. Van der Keilen (1995), after reviewing a number of studies concerned with the relationship between the intensive learning of French by students and the development of contacts with French-speaking people, proposed that the relationship between the acquisition of French by Anglophone's and their attitudes towards French people, French culture and the learning of the French language, improved these attitudes as the learning of the language progressed.

It is likely that contact and interactions with the target language group can affect students' motivation and attitudes. This statement is supported by results of Clement, Gardner and Smythe (1977) work with grade eight Anglophone students who participated in a brief visit to Quebec City. The improvement in positive attitudes was significantly greater for students reporting frequent contacts with local people than for students reporting few contacts, or in those who did not take part in the visit. It should be noted that attitudes of these students prior to the trip were already positive.

Similarly, Deshajes and Hamers (1981) studied the effects of participation in inter-cultural exchanges by elementary and secondary school children. They
found that attitudes and motivations related to a second language are affected favourably by these exchanges from the end of elementary school on.

Bicultural excursion programs are common way to provide an opportunity for short term interactions with members of the other language community in their own society to help develop positive attitudes toward that group. In many of these studies, it has been shown that visiting the other community and actively trying to use the language promotes a positive change in attitudes (Gardner et al., 1974; Gardner, 1981; Clement, Gardner & Smythe, 1977). Although most studies focusing on attitudinal and motivational changes seem to measure contact with members of other language group, they tend to ignore the nature of the contact. As Gardner (1985) noted though, the important factor in determining positive attitude change is a pleasant experience rather than the frequency of contact.

Renzo (1990) emphasised that developing positive attitudes is a first step towards the achievement of second language learning in the case of students learning. He suggests that the organisation of international student exchange programs has brought, in general, good outcomes resulting in the promotion of favourable attitudes.

Equally, it seems acquisition of a second language, might facilitate participation in the culture with which it is associated. There is evidence to suggest that knowing the language is not sufficient for actual interaction with the target language community. Taylor and Simard (1975) proposed that a limited number of interactions may not be due to insufficient knowledge of
the other language and its rules, but rather to a lack of familiarity with the social norms of the culture associated with the language.

In the light of above discussion it may be that second language learning and achievement can be improved by considering the motivational support the learner expects from the target language group. In other words, active involvement in the target language group needs the learners' perceptions of that group's support. Genesee, Rogers, and Holobow (1983) explored the relationships between the learners' own motivations and their perceptions of motivational support from the target language group by asking adolescent English-speaking Canadians why they were learning French and why they thought French-speaking Canadians wanted them to learn French. The findings indicated that second language learners' perceptions of the target language group's support for learning their language is positively correlated with the learners' proficiency in the language and willingness to belong to social group that include members of the target language group.

Although the studies reviewed here have focused on positive attitudes in contact with target language communities, there are a few studies that show students' dissatisfaction with target language groups. Among these studies, is Cummins' (1981) reported that some minority children experience difficulty in school in the U.S. He argued that one of the reasons of school failure among minority students that is (when individuals or groups perform poorly in a school situation where they are instructed in a second language) is ambivalence or negative feelings towards the majority culture and often toward their own culture. In contrast, children who do well academically do not suffer from this "bicultural ambivalence".
Learning a dominant group's language from point of a minority group's view may lead to threat on their cultural identity. Taylor, Meynard, and Rheault's (1977) finding indicated that learning English can make a threat to personal and cultural identity for French Canadian university students and that this threat can affect the progress in learning that language. Higgins (1987) also pointed to a sort of negative motivation in learning a second language. He proposed that social reality goals may contribute to negative motivation in situations where a minority group is trying to learn a second language. Some people from the minority group may be motivated not only by the desire to acquire a second language but also by not wanting to be embarrassed by speaking the language of the "other" group poorly (p. 224).

However, for effective learning of a second language, it is better to supply conditions favouring the development of attitudes of acceptance of cultural patterns that diverge from native ones (Renzo, 1990).

Schumann (1978) argued that better second language learning occurs when learners perceive little "social distance" between themselves and the target language group. According to Schumann, this occurs when both groups desire assimilation and when the cultures of both groups are congruent. Social distance is thought to increase when there is less willingness to assimilate and when there is cultural conflict. Among children who learn a second language in a natural setting, best results were obtained by those children who showed the greatest desire to belong to, and identify with, the target language speakers (Wong Fillmore, 1976).
In summary, this review of soci-psychological perspectives regarding second language learning shows that attitudes in second language learning and toward second language target communities are important factors in second language development. The social context in which second language acquisition occurs has come to play an important role for students learning language. The next section will review studies that are related to the students' motivation in second language acquisition.

3.2.3 Motivation and second language achievement

When asked to answer the question why someone is learning a second language, many reasons could be listed: to be able to speak with members of that language community; to get a job; to improve one's education; to satisfy language needs; and so on. However, the reasons inevitably reflect some goal associated with language learning. In Gardner's (1985) definition, the concept of motivation refers to effort, want, desire, and affect associated with learning a second language and is seen as important in determining how actively the individual works to acquire language material (p. 147).

In assessing motivation to learn a second language, although the goal is not a measurable factor of motivation, it is a stimulus which gives rise to motivation. Gardner (1976, 1985) argued that motivation to learn a second language should be considered to have three components: effort expended to learn the material, desire to learn the material, and favourable attitudes
associated with learning the material. In their research, Gardner and associates often assess these with verbal report measures of Motivational Intensity, Desire, and Attitudes toward Learning the Language respectively.

Gardner (1979, 1985) distinguished motivational factors in learning a second language from orientations in order to maintain conceptual clarity. In his definition, orientation refers to a class of reasons for learning a second language, while motivation refers to a complex of three characteristics (effort, desire, and attitudes to achieve the goal) which may or may not be related to any particular orientation. This distinction between orientation and motivation is exemplified in the difference between an integrative orientation and an integrative motive. The former refers to that group of reasons that suggest that someone, for example, is learning a second language in order to come closer to the target language community. An integrative motive refers not only to the orientation but also the motivation, including attitudes toward learning the language, as well as desire and motivational intensity. Gardner argued that it is possible for someone with an integrative orientation to be more motivated than an individual with another orientation, although it is not guaranteed.

There has been considerable research, especially by Canadian investigators, on the relationship between language learning and motivational factors. Gardner and his colleges (Clement, Gardner & Smythe, 1977; Gardner & Lambert, 1972, 1976) focused on two types of orientations, integrative and instrumental. In particular, Robert Gardner and Wallace Lambert (1972) found that those subjects who had an "integrative" motivation (who learned the language in order to become like members of the target language group)
were more successful learners than those who had an "instrumental" motivation (who learned the language for practical reasons, such as passing an examination or getting a job). Their work also indicated that second language achievement in different social settings was differentially related to two distinct motivational complexes which they identified as integrative and instrumental. More specifically, they found that Anglo-Americans in Connecticut who had French as a second language were characterised by an integrative orientation. In contrast, Filipinos learning English as a second language in the Philippines were motivated primarily by instrumental reasons.

The question of whether motivations differ between learners of second and foreign languages is important, and several articles (Dornyei, 1990; Oller, 1981; Shun, 1988) have raised in this issue. Integrative motivation might be less relevant for foreign language learners than those learning a second language, according to Dornyei (1994), because foreign language learners have limited opportunity to participate in a target culture-language community and thus to have a clear attitudes toward that community. In contrast, instrumental motivation should be more important for foreign language learners than for second language learners. Oxford and Shearin's (1994) discussion of differing motivations between foreign and second language learners concluded that integrative motivation is much more meaningful for second language learners who are surrounded by stimulation, both visual and auditory, in the target language and thus have many motivational advantages.

Researchers use both direct and indirect measures to assess integrative and instrument motivation. Spolsky (1969), for example, used an indirect
measure of attitudes in which he asked the subjects who were foreign
students in USA to attend American universities, to rate themselves, their
compatriots, their ideal, and native speakers of English on a list of thirty
personality attributes. His result indicated that "the subject's attitudes to
speakers of the second language will have a great effect on how to learn. A
person learns a language better when he / she wants to be a member of the
group speaking that language" (p. 281). In addition, Spolsky found that there
is a clear correlation between integrative motivation and English proficiency.

Gardner and Lambert (1972) have attempted to identify the relative roles of
integrative and instrument motivation in learning English among Filipino
students. The status of English in the Philippines is very high, as English is
the language of economic and social life, as well as the medium of instruction
in that society. They reported that English proficiency was high among
students with instrumental motivation for learning English.

American students of Spanish who are studying Spanish as a second
language, while reporting integrative orientations for second language
learning along with positive attitudes toward Spanish speakers and the
Spanish language, showed that they have also meaningful instrumental
orientations for studying Spanish (Muchnick & Wolfe, 1982).

A possible explanation for interaction between motivation and second (third)
language learning processes might be related to the concept of inter-group
distinctiveness. Garate and Iragui (1993) proposed that bilingual students
who perceived their position illegitimate and the inter-group situation
that the terms integrative and instrumental should be applied to orientations (i.e., a class of reasons for studying the language), not motivations.

From the above discussion it can be seen that context and interaction with speakers of the target language play an important role in acquisition of a second language. Students' experiences with second language acquisition can have an influence on their attitudes and motivation. It seems, however, that those who become involved in the target language community and participate actively in that community might develop more favourable attitudes toward language learning. It must be noted that having positive or negative attitudes toward language learning and the target language group was dependent on learners' experiences. These in turn, mediated a change in attitudes. That is, it may make a second language learner more confident when he/she has a good experience with in a context and also with speakers of that language.

In a situation where second language learners are often new members of a host country and are usually engaging in many activities in that society, their positive attitudes might come from success, while negative attitudes might result from frustration experienced, and it is quite likely their total experiences influence their attitudes and motivation.

In a situation where bilingual children are instructed in a second language in an educational setting (regular program), parental encouragement and quality of direct contact with native speakers of the second language are potentially predictors of second language proficiency.
Apparently, children are influenced by their parents' attitudes in learning a second language, but to what extent? In the following sections, parental role on the children's attitude and motivation in learning a second language are highlighted.

3.3 Parental Influence on students' attitudes and motivation

There is a widespread belief that children's attitudes are dependent on their parents, particularly at the younger ages. Parents' attitudes toward children's second language achievement are important because it is the parents who act as a major intermediary between the cultural context and the children. Parental attitudes, positive or negative, are picked up by children, so that children bring a range of complex attitudes to the language learning context with them. Although there has been little research on the role of parental variables in second language acquisition, there is some evidence of a relationship between parental attitudes and students' achievement in second language learning (Colletta and others, 1983; Garate & Iragui, 1993; Gardner, 1972, 1975, 1983, 1985; Gardner & Lambert, 1972; Oskamp, 1977).

Gardner (1972), in interviews with parents, found that parents' and children's attitudes were similar, supporting the idea that children's attitudes are developed within the family. Gardner and Lambert (1972) found that students who perceived their parents as having positive attitudes towards the
learning of a second language and who encouraged them, achieved greater second language proficiency (Gardner, 1975; Gardner & Lambert, 1972).

3.3.1 Parental Active role

Gardner (1972, 1985) distinguished between two roles of parents. The first is an active role, when they encourage their children to do well and when they reinforce any successes identified by the school. Parents who spent time with their children to teach them some aspects of a second language, or helped them to do school homework were described as playing an "active" role. Parents may also play an active-negative role when they agree with the child that learning a second language is a waste of time. In fact, the active parental influence refers to the parents' direct encouragement of, and involvement with, the student's learning of a second language. It seems that parents who are actively involved in students' language learning will themselves have their attitudes shaped by the experience. It is likely parents who actively encourage their children in the use of a second language also affect children's contact with the second language culture.

It is reasonable to hypothesise that parents who take an active role in the language learning context would influence their children's acquisition of a second language. However, according to Gardner (1985) there is no direct evidence of association between active parental involvement and second
language proficiency of their children. In terms of social distance though, parental support does appear to have a positive effect.

Gardner and Smythe (1981) found that children who receive more support from their parents in acquiring a second language, seem to be closer to the target language group.

3.3.2 Parental Passive role

The second parental role according to Gardner (1972, 1985) is the passive or indirect role. It involves the parents' attitudes towards the second language community. Parents who have positive attitudes towards the community, serve to support an integrative motive in the students. On the other hand, parents with negative attitudes inhibit the development of such positive attitudes, even in situations where they might actively promote second language achievement (Gardner, 1985).

Although active and passive roles can operate independently, they may also coexist, so children could be influenced by different attitudes— one an active role, presenting positive attitudes and the other a passive role transmitting negative attitudes. In such a case, the children's attitudes would reflect some personal resolution of this conflict. Gardner (1985), in discussing this matter, claimed that any solution was dependent on many factors and was not easy to predict. What is clear is that parents do have an influence on children's attitudes and motivation and these are related to second language acquisition.
In other words, parents play an important role in the development of proficiency in the second language, even when they may not be aware of it.

In the literature, many of the reports on parental roles have focused on the effectiveness of parents' passive role (Colletta and others, 1983; Gardner, 1972, 1985). It is possible that passive support (positive general attitudes toward the other community) can lead to the development of integrative motivational characteristics that have been shown to facilitate second language acquisition. It should be noted that children's perception of their parents' support is not directly related to their performance in class, but it is related to their willingness to continue language study and to work hard to learn the second language.

Based on the available evidence, particularly in terms of Gardner's (1985) concepts of active and passive roles in learning a second language, better understanding parental roles might well enhance our knowledge of the processes involved when children learn a second language.

3.3.3 Research evidence on the parental role in second language acquisition

Parents' role in their children's development of attitudes and motivation and hence on second language acquisition have been investigated in many studies. Gardner (1977) found that children who study French in Canada as a
second language were integratively orientated and generally had mothers who expressed an integrative orientation. He also found that the mothers of integratively orientated students expressed more favourable attitudes toward French Canadians than did mothers of instrumentally orientated children.

The relation between parents' and children's attitudes was examined by Feenstra (1967). He assessed students' language aptitude and their French proficiency and also administered comparable attitudinal/motivational measures to grade eight students and their parents. His result indicated that "integratively oriented students tend to come from homes where parents have a basic integrative orientation with pro-French attitudes" (p.42). There were a few significant but low correlations between parents' attitudes and children's achievement in the second language. A similar research study was conducted by Gardner and Santos (1970) with senior high school students in Manila, Philippines, who were studying English as a foreign language. They found that there was an association between parents' and children's orientations and attitudes. In addition, children who were instrumentally orientated and who had parents who expressed a similar orientation were more proficient in oral language skills than integratively orientated students.

In another Canadian study, Desrochers and Gardner (1981) examined the differences between parents who permitted their children in grade eight to participate in a four day excursion to the French city of Quebec and those who did not. When the parents were compared, they found that those whose children participated in the excursion expressed more favourable attitudes toward French Canadians and toward learning French language than did parents of children who did not go. These results indicated that parental
attitudes toward the other language community and the value of learning the language were involved. They also show that there is a connection between attitudes and the active role of the parents.

The effect of parental influence on children's second language acquisition, Colletta and others (1983) tested on the Gardner's (1979) model of second language acquisition. Data were obtained from 68 Anglophone students in grade 7-10 enrolled in a French immersion program and also from their parents. In respect to parents' roles on children's attitudes and motivation toward French Canadians. One of the findings of study indicated that there was no significant relationship between parental influence and students attitudes. In this case, therefore, there did not appear to be any relation between children's and parents' attitudes. The author interpreted these results by indicating that this study was conducted in a region where French and English language instruction is common and a large proportion of both English and French speaking Canadians.

The research findings outlined in this section have highlighted the importance of parents as socialising agents in children's attitudes towards language study, their feelings about the other language community, their performance and so on. Hence, parental support in any form of active or passive role, encourages children to develop an integrative motive toward language study and therefore, had a positive effect on second language acquisition.
3.4 Summary and conclusions

This chapter has discussed the role of attitudes and motivation in the acquisition of a second language, reviewing, in particular, studies that have addressed questions relating to school students' attitudes and motivation toward learning a second language, their attitudes toward the target language group, and parental influences in learning second language.

In this chapter some aspects of a socio-psychology theory of attitudes and motivation based on the work of Gardner were presented. Gardner (1979, 1984) presented a theory (model) of second language learning which incorporates all factors that appear to have a determining influence on the learning process. Students' attitudes and motivation toward learning a second language and also the social context in which they are involved were two aspects of Gardner's theory discussed in this chapter. Another aspect of this model concerned the influence of parents on children's second language learning.

The research findings and theoretical perspectives outlined in this chapter have highlighted the importance of attitudes and motivation in the process of acquisition second language in social context.

Based on the available evidence, the parental variables, particularly in terms of Gardner's concepts of active and passive roles, seem to be important in second language learning.
The theoretical guidance provided by the literature gives us an insight into relationships between socio-psychological factors and second language acquisition, particularly with school aged children who come from a culture and background that differs from the main stream culture of the school.
Chapter 4

RESEARCH QUESTIONS AND HYPOTHESES

4.1 Introduction

This chapter directs attention to research questions and hypotheses arising from the review of relevant literature discussed in Chapters 2 and 3. From the literature and previous theory, a number of broad questions were formulated. These questions, in turn, gave rise to several hypotheses then tested through the current research.

Most of the studies dealing with second language acquisition discussed in Chapter 2 and 3 have highlighted the role of first language skills in second language proficiency. Bilingual children who have maintained their first language and enhanced it with literacy knowledge, tend to show good proficiency in their second language. Vygotsky (1992) argued that when a child acquires a first language, it begins with unawareness, without any form of
linguistic rules and strategies. But second language learning often happens in a conscious form, with definition of words and with the study of grammar. Vygotsky (1992) argued that the effective learning of a second language depends directly on a mastery of the native (first) language. Bilingual children who master a system of meaning in their first language are likely to develop a good command of their second language. Hence, the role of first language literacy in the acquisition of a second language is very important. According to this view, bilingual learners analyse a new language and when they are aware of rule-governed processes, the acquisition of academic learning in a second language is under the control of the first language. As bilingual children obtain the control and mastery of linguistic and cognitive processes in the first language, they are enabled not only to develop their first language, but also to use these strategies to develop second language competences.

Vygotsky believed that it is competence in the first language that provides the basis for second language learning. This is quite consistent with Cummins’ (1979, 1984, 1986) "interdependence hypothesis", according to which he argued that certain aspects of a bilingual’s proficiency in the first and second language are common or interdependent across languages. That is, when a language operation such as reading and writing has been acquired in one language, the same operation does not need to be re-acquired in a second language.

When asked to perform school reading in two languages, bilingual learners seem able to draw on the same knowledge base (Cummins, 1979; 1991). In other words, literacy concepts once learned and used seem to transfer across languages. However, most studies exploring this issue have dealt with two related languages within the European language family, especially French and
English in Canada, and Spanish and English in the United States. Little attention has been given to bilingual education involving two different writing systems like Persian and English. In Australia, as far as we are aware, there are relatively few (Taft & Cahill, 1989; Sheng & Gibbons, 1996), published studies investigating the relationship between children's first language literacy and their second language literacy. No specific studies investigating the relationship between languages with different orthographic systems were found. In a related study, however, Taft and Cahill (1989) found that a high level of literacy in the mother tongue was associated with a high level of literacy in English among Lebanese immigrant students in Melbourne, Australia, while poor mother tongue literacy was associated with poor second language literacy. Clearly, there is a strong need for comparative research studies in this area in the Australian context.

In the current study, the main question is whether and how the development of academic skills in a first language (Farsi) with a special writing system facilitates performance in a second language (English). This is important both because of its relevance to theoretical issues in second language acquisition, and in particular, because there are different orthographies and writing systems between the two languages, Farsi and English. In the current study, subjects are Iranian immigrants (short-term residents) whose first language is Farsi who attend an Iranian weekend school. They are also attend regular Australian schools where they receive their instruction in English. If, as suggested, there is a particular advantage having strong literacy skills in the first language associated with second language proficiency, could it be that dissimilarity between two languages is a critical factor? Will there be a similar advantage if the second language is quite dissimilar from the first? In order to investigate these question,
it was decided to examine Iranian primary school children's writing ability in Farsi and English.

In addition to the role of first language literacy in second language acquisition, there is growing evidence to suggest that students who hold favourable attitudes towards various aspects of language study (e.g., attitudes towards the second language culture and the learning situation), and who are motivated to do well in their second language study are most likely to succeed. Several studies have related attitudinal and motivational variables to different aspects of second language acquisition, suggesting that these social psychological variables play an important role in second language acquisition (Gardner, 1983, 1985; Lambert et al., 1967).

This study also focussed on an exploration of socio-cultural factors affecting the Iranian children's academic achievement in English. All children were attending a regular school in Australia, and were involved in Australian culture and behaviour both inside and outside the school. Thus, interaction with the wider socio-cultural environment would be expected to influence their English proficiency. Of specific interest in this study were children's motivation to learn a second language and their parents' attitudes to children's acquisition of English proficiency. Gardner's (1985) socio-educational model was used as a pattern for the development of a model to assess children's attitudes and motivation.
4.2 The role of first language literacy

As noted in Chapter 2, children's first language literacy appears to be an important determinant of success in second language acquisition in a school setting. As Vygotsky (1992) emphasised, children obtain the control and mastery of linguistic and cognitive processes in their first language in school. These abilities are then employed in the relevant linguistic strategies in their second language.

The relationship between the literacy skills in children's first language and their second language development, particularly for children who come from different linguistic, cultural, and social backgrounds, is of growing concern. Hence, educators and researchers need to examine carefully the effects of children's first language proficiency on second language acquisition. It is important to determine whether students who show high levels of first language skills develop similarly high levels of language skill in their second language. Of specific interest in this study is a comparison of students' proficiency in writing skills in both Farsi (their L1) and English (their L2). While English is the formal and official language in Australia, languages of recent migration are officially supported through both radio and television. The main question in the current study - is whether the dissimilarity between the writing systems in English as a dominant language in Australia and Farsi as the language of a minority group provide a convincing interpretation of the interdependence hypothesis.
4.2.1 The indicators of language writing skills

Writing skill was selected as the measure of literacy-related proficiency for this study because it is central to learning in most schools and reflects concept knowledge that children acquire in the school setting. Literacy, as Snow (1983) pointed out, refers to activities and skills associated directly with the use of print—namely reading and writing. Writing as a cognitive activity uses specific kinds of knowledge held by a writer. For writing a sentence, for example, the writer must create a statement with explicitness of meaning; so words must follow a clear sequential pattern. Writing skills provide a way of making meanings clear. Frederiksen and Dominic (1981) suggested that the use of writing knowledge requires different kinds of cognitive processes including: generating meaning, expressing meaning, selecting the better language form for expressing this meaning, and also reviewing and revising meaning. As Flower and Hayes (1981) pointed out, writing is a complex process in which an idea is generalised, organised and produced requiring high flexibility in the writer's mental activity. During essay writing, writers employ complex modes of composition. They must plan for content, organise it, and then set up goals and procedures for writing (Hayes & Flower, 1983). A major part of the writing process for good writers is spent in developing global goals and presenting ideas. Hayes and Flower (1983) argued that both the quality and quantity of these goals appear related to the ability of the writer.

For bilingual children, particularly when their first language has a different writing system, learning to write in a second language involves not only different kinds of cognitive processes but also acquisition of a new and complex orthographic system. Writing, therefore, develops along with students' learning
of the written code of a language. When the first and target languages share the same script and orthography, learners might use what they have learned from first language literacy to write in their second language (Edelsky & Gilbert, 1985). What about when the writing systems of two languages quite different from each other? Hence, the question to be addressed in this study is what happens to the interdependence hypothesis when writing systems are quite different as in the case of Farsi and English?

Krashen (1981) proposed that bilingual children use what they know about their first language when they write in their second language until they acquire the structural rules of the second language. As highlighted in Chapter 2, Krashen (1981) and Zamel (1983) found that second language writers used strategies similar to the ones used by native speakers. Second language writers use strategies across languages; for example, those who planned little in L1 planned little in L2 as well. In fact, according to Jones and Tetroe (1987), the quality of planning skills in L1 transfers to L2, and language proficiency merely affects the quantity, not the quality, of planning. However, little attention has been paid to skills in second language acquisition when subjects' first language script does not share the same form as their target language (as in the case of Farsi and English).

Since the research reported here concerns Farsi, it may be of use to some readers to indicate how the Farsi writing system differs from English, although both derive from the Indo-European language family. Differences between Farsi and English appear mainly in the following. Learning to write in English requires learning an alphabetic written code consisting of 26 letters and mastering the complex sound-symbol correspondences represented by these letters and their combinations. In writing Farsi, the situation is quite different. Farsi uses the
Arabic script with four additional letters. It is written from right to left; each of
the 32 letters of the alphabet has three shapes depending on whether it occurs at
the beginning, middle or end of a word; 22 of the letters are distinguished from
one another only by the presence or absence of a dot or stroke; and not all vowels
are represented in script.

4.2.2 Assessing writing skills

A common technique for assessing bilingual children's writing skills in two
languages, as McLaughlin (1985) suggested, is to ask them to write a story. In
telling a story in written form, students not only follow an idea in writing, but
also employ different words and sentences to complete their idea. When
children are asked to write something after looking at a special TV program or
after watching a picture, for example, they employ many words and sentences
for writing appropriate to their own age.

The quality of children's writing can be assessed in terms of the range of
vocabulary, accuracy of spelling, and grammatical correctness. However, this
analysis of surface or functional features describes only linguistic and technical
abilities of bilingual children's writing. Another way to assess students' written
composition, according to Cooper (1983) and Mosenthal (1983), requires an
analysis of the abstract level in the content hierarchy of the text or a structural
view of the composition. This approach focuses more on coordination and
harmony between the sentences in the text, on the one hand, and relevance to the
topic and to other sentences on the other hand. Thus, it is a more "holistic" assessment.

In this study assessment of students' writing in Farsi and English was based on both functional features and structural content. Functional features were measured in terms of linguistic productivity as well as correct use of technical skills while structural analysis was assessed by a rating of the overall holistic schemes.

It is assumed that students in primary school are able to describe things and events as they observe them. A descriptive task was one measure selected in this study since it is familiar to children of this age group. A second task was a comparison one. Because a comparison task required children to think abstractly about something, it was used as an indication of the writer's success in a higher-level thinking task.

Regarding the different linguistic and technical processes such as grammar, structure, and lexical and script system between Farsi and English, of interest was the question of whether the children's first language writing proficiency is a strong determinant of success in L2 writing skills. As noted above three indicators were used to assess students' abilities to compose in descriptive and comparative essays. These three indicators were (a) linguistic productivity, (b) holistic schema, and (c) technical skills. The use of the three indicators provides a comprehensive pictures of students' written text.

It should be mentioned that few studies of bilingual children's writing seem to use all three indicators. Hence, the mode of assessing written text in this study
was particularly rigorous. Using measures of linguistic productivity and technical skills seem to be the most common ways of assessing bilingual children's writing (Carlisle, 1986; Lanauza & Snow, 1989; Swain, 1975). In the case of holistic assessment, this indicator has been used rarely by researchers to assess bilingual children's writing. Specific descriptions of each measure and the rationale for its use is provided below.

4.2.3 Rationale for linguistic productivity indicators

Linguistic productivity was selected as the most appropriate measure to explore bilingual children's writing ability. In this study, linguistic productivity refers to the length and complexity of written sentences. Measures of linguistic productivity are based on counts of the number of words, and the number of simple and complex sentences. As Lanauza and Snow (1989) and Richardson, Calnan, Essen, and Lambert (1976) suggested, the ability to produce longer and more complex written sentences is one reliable indicator of development in written expression.

In the present study, the T-unit was used as a grammatical index. Hunt (1965, 1972, 1977) in his study of school children's writing, found some difficulty in accounting for the strings of words written by immature students who had a tendency to connect long strings of words with and, or join them without a coordinator or punctuation. At other times the children made a sentence using punctuation which was missing the subject or a finite verb, thus making it incomplete. Hunt defined the shortest possible sentential unit which was still
grammatical as the "terminal unit" (T-unit). Hunt (1977) used the T-unit as a measure of syntactic maturity. Research evidence indicated that there is a positive relationship between age and number of T-units (Carlisle, 1986; Ostler, 1987). Studies involving the use of the T-unit as a measure have shown that students who are more proficient in writing generally write more syntactically complex sentences than students who are less proficient in writing (Carlisle, 1986).

4.2.4 Rationale for holistic scheme indicators

One way to describe the language in students' written writing composition is to identify the linguistic structures such as sentence type, number of words and vocabulary. These types of measures are able to tell us what the writing composition looks like in linguistic and grammatical terms. They cannot tell why the written composition makes use of these particular sentence types. To answer the why question, one needs to assess the global output from the writer's goals and plans.

Some skills in the writing process, such as planning strategies (Jones & Tetroe, 1987), and revising strategies (Hall, 1990; Urzua, 1987) seem to be similar between L1 and L2. Some aspects of the writing process such as planning and organising writing seem to be independent of language structure and show the writing "quality". It is useful to assess this aspect of students' writing overall ability. To achieve this aim, the use of holistic schema was selected for the assessment of writing proficiency in both L1 and L2. Holistic schema refer to the
writer's ability to organise schemes, develop an idea through an essay, keep the structural features, and reflect the number of ideas introduced in a text. These criteria appear to occur independently of the language used for writing. Holistic scoring, as Freeman and Calfee (1983) suggested, is a rating process for cognitive analysis in writing assessment.

4.2.5 Rationale for technical skills indicators

As mentioned earlier, technical skills refer to correct mechanical language use or language structure such as spelling, punctuation, capitalisation and grammar. Indicators of technical skills have been used mostly in studies which compare bilingual students' technical writing in two languages from a European backgrounds, such as French and English or Spanish and English. In the current study, in spite of differences between technical skills in Farsi and English, this indicator was used in order to obtain a measure of technical skills in each language based on the requirements of that language.

Clearly the three dimensions chosen to evaluate the students' writing (namely, linguistic productivity, holistic schema, and technical skills) do not reflect all aspects of students' skill in writing. Some potentially useful indicators were abandoned because of time and research limitations. Nonetheless, these three indicators reflect important dimensions of academic writing for comparing bilingual students' writing skills.
This study specifically addressed the following research question: To what extent do first language writing skills affect second language writing skills? A number of specific hypotheses were subsumed under this general question.

Hypothesis 1.1

Students who have high levels of performance in linguistic productivity in Persian (Farsi) will perform well in linguistic productivity in English.

Hypothesis 1.2

Students who have high levels of performance in holistic schema in Persian (Farsi) will perform well in holistic schema in English.

Hypothesis 1.3

Students who have high levels of performance in technical skills in Persian (Farsi) will perform well in technical skills in English.

4.3 Students' motivation and attitudes towards learning a second language

As discussed earlier, it is assumed that attitudinal/motivational characteristics facilitate the acquisition of a second language (Gardner, 1985). Gardner's work indicated that affective factors, including measures of the learner's attitudes and
motivation, had statistically significant relationships with second language achievement. His work also indicated that second language achievement in different social settings was differentially related to two distinct motivational complexes identified as integrative and instrumental orientations (Gardner, 1985; Gardner & Lambert, 1975).

An integrative orientation is characterised by individuals who learn a second language in order to identify with, and become members of, the second language community. An instrumental orientation refers to pragmatic reasons for learning the second language such as getting a job in one's future occupation. The distinction between integrative and instrumental orientations toward second language learning implies that the social context might have a significant impact on second language learning. It should be noted that in some societies, while there are reasons for learning a second language for integrative purpose, at the same time there are other reasons which promote second language learning for instrumental purposes. In the case of Australia, all non-English speaking immigrants are generally expected to learn English for integrative reasons (to become part of Australian society), as well as for instrumental reasons (in order to get a job or to interact with public service employees).

Like most immigrant students, the Iranian students who were the participants in this study were subjected to various kinds of influence within the social milieu of Australian cultural contexts as well as in the school setting. Students' learning involved not only the acquisition of English language but also the acquisition of elements of Australian culture and behaviour. Thus, it was interesting to know what influence students' attitudes and motivation would have on their achievement in learning the English language. As Lambert (1974) said:
An individual successfully acquiring a second language gradually adopts various aspects of behaviour which characterise members of another linguistic-cultural group. The learner's ethnic tendencies and his attitudes towards the other group are believed to determine his success in learning the new language. His motivation to learn is thought to be determined by his attitudes and by his orientation towards learning a second language (p. 114).

In this study, important questions relating to attitudes were addressed. In general, what is the influence of social motivation and attitude variables on the acquisition of writing English proficiency? More specifically, does children's performance in their second language relate to their attitudes towards Australia and their motivation to learn the language?

In this study, attitude and motivation were operationalised as six variables as follows:

i) attitudes towards Australian people;
ii) attitudes towards learning English;
iii) integrative motivation;
iv) instrumental motivation;
v) students' perceptions of parental encouragement; and
vi) students' effort.

In light of the above questions, the following hypotheses were postulated:
Hypothesis 2.1

The six attitude /motivation variables are positively correlated with English writing skills (Linguistic productivity).

Hypothesis 2.2

The six attitude /motivation variables are positively correlated with English writing skills (Holistic schemes).

Hypothesis 2.3

The six attitude /motivation variables are positively correlated with English writing skills (Technical skills).

4.4 Parental influence

As already discussed in Chapter 3, parents undoubtedly play an important role in children's socialising and also in their attitude development. Parents who feel that learning a second language is important for their children tend to provide opportunities and encourage them, but according to Gardner (1985), it is the parents with favourable attitudes toward the target language group and language learning that promote cultural exchange. This reflects the active and passive roles of parents as described earlier. An active parental role refers to the parents' direct encouragement of and involvement with the student's learning of a second language. A passive or indirect role, according to Gardner (1985), refers
to the parents' attitudes toward the second language community. While parents who have positive attitudes towards the target language community serve to support an integrative motive in the children, parents with negative attitudes inhibit the development of such positive attitudes. Much of the research on parental role has focused on effectiveness of the parents' passive role. There is the possibility that passive support (positive general attitudes toward the target language community) can lead to the development of integrative motivational characteristics that have been shown to facilitate second language acquisition. Gardner's (1985) concepts of active and passive roles, were considered in this study in the process of children's second language learning.

In the present study, questions of how parents' attitudes affect children's attitudes and their achievement in learning the second language are considered. In this study, all parents were studying for higher degrees in Australia and their children were enrolled in Australian schools. Children also attended Iranian weekend school to maintain and strengthen their first language. As will be discussed in Chapter 6, all teaching in the weekend Iranian school is in the children's first language, Farsi. One of the main reasons for attending weekend Iranian school is so that when children return to Iran to continue their education at the conclusion of their parents' term of study in Australia, they will not be disadvantaged.

With respect to the parental influence of active and passive parental roles; the following hypotheses were formed to explore relations between these variables and children's attitudes to learning the English language, their attitudes towards Australians, and also their achievement in second language learning (English).
Hypothesis 3.1

A passive parental role is positively correlated with students' attitudes toward learning English and students' attitudes to Australian people.

Hypothesis 3.2

An active parental role is positively correlated with students' attitudes toward learning English and students' attitudes to Australian people.

Hypothesis 3.3

Passive and active parental roles are positively correlated with students' achievement in second language writing skills (Linguistic productivity).

Hypothesis 3.4

Passive and active parental roles are positively correlated with students' achievement in second language writing skills (Holistic schemes).

Hypothesis 3.5

Passive and active parental roles are positively correlated with students' achievement in second language writing skills (Technical skills).
4.5 Length of Residence

Another factor which had to be considered was the time spent in the target language context and how this influences the acquisition of a second language. It is reasonable to expect that length of residence in a target language context is a major determinant of second language achievement as some studies have shown (Carooll, 1975; Cumming, 1994; Spada, 1985). But research studies have also indicated that length of residence affects English speaking rather than English academic learning as reflected in reading and writing (Cummins, 1979; 1984; Cummins, et al., 1987; Cummins & Swain, 1986; Sheng & Gibbons, 1996). For mastering academic language learning in terms of reading and writing, it has been claimed that bilingual children need to be resident in the host country around four-five years (Cummins, 1985).

With respect to the effect of period of living in the target language context (in this case, Australia) on the acquisition of a second language, the present study had to consider how length of residence influenced second language writing abilities and then to consider length of residence as a control variable. Subjects in present study had lived in Australia a minimum of one year and a maximum of five years, with an average number of 3.3 years. All of children were of school age when they arrived to Australia, and they started their education in the regular Australian school.
Question 4.1

Will children's length of residence in Australia affect performance in second language writing skills (linguistic, holistic, and technical skills)?

4.6 Students' general intelligence

To many educators it seems clear that intelligence plays an important role in children's success in acquisition of a second language. However, even though little is known about intelligence as a predictor of second language learning proficiency, an important question derived from studies exploring intelligence is whether bilingualism affects intelligence score or the conversely? Reynold (1991) argued that, perhaps more intellectually gifted children become more linguistically proficient or perhaps the reverse is true. The question of whether bilingualism affects performance on intelligence tests or reverse is not important according to Reynolds (1991). He argued that it is important to understand that there is a relationship between bilingualism and intelligence.

There are arguments among educators about using conventional intelligence tests with children from ethnic and cultural minority backgrounds. Trueba (1991) discussed this matter from the point of the view cultural perspective and argued that intelligence is not the ability to score high in tests based on problem-solving, but it is a ability to follow one's cultural goals. In many educational contexts, the dangers of cultural and linguistic bias are often assumed to have been overcome when minority bilingual children have been exposed to sufficient
of the dominant language and culture to acquire some level of proficiency in the new language. In Cummins' view (1984), the school program in any community (mostly in bilingual contexts) tends to reflect the language, culture, and learning style of the dominant group and thus it is reasonable to assume that IQ verbal tests would be biased to some extent against minority groups.

For this reason, the Raven's Progressive Matrices Test, a nonverbal test, was selected for the present study to avoid the effects of language on verbal IQ measures as mentioned above.

It is important to mention that in present study, students who enrolled in Iranian weekend school came from middle to upper-middle socio-economic background, and thus were considered to be of similar socio-economic backgrounds.

In the present study, the Raven's Progressive Matrices Test, a nonverbal test, was administered to assess students' general intelligence which was then used as a control variable.

Hypothesis 5.1

Children's scores on measures of general intelligence (Raven's Progressive Matrices Test) will correlate with second language writing skills (linguistic productivity, holistic schemes, and technical skills).
Chapter 5

RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction

The present study was designed to explore the role of first language literacy and motivation in second language acquisition and to examine aspects of writing in first and second languages. Writing composition skill was selected as the measure of literacy-related skills because it reflects the concept knowledge that children acquire in a school setting and is believed to develop further through the transfer of concepts acquired in the medium of L1 to L2. Although the main focus of the study was the influence of first language literacy on a second language, motivation and attitudes towards learning the second language were also examined because of their perceived role in second language acquisition.
According to research studies (Cummins, 1979, 1984, 1991;) on the relationships between L1 and L2, children who are proficient in their first language can promote development of their second language particularly with respect to literacy related skills. In other words, bilingual children who arrive in an English speaking school with a strong command of their first language and a developed range of concepts in that language are in a very favourable position to learn English. In addition, should experience and instruction in that first language continue, there is, according to Cummins, a strong likelihood of further positive influence on L2 skills. With regard to writing, it seems that children are able to transfer the planning strategies in the writing process from L1 to L2 when they instructed in both languages (Jones & Tetroe, 1984).

According to a number of studies (Bamford & Mizokawa, 1992; Bild & Swain, 1989; Cummins, 1979, 1984, 1986, 1989; Gonzalez, 1986; Linda & Lofgren, 1988; Skutnabb-Kangas & Toukomaa, 1976), the use of certain functions of language and the development of vocabulary and concepts in the first language are important determinants of success in a school situation where instruction is in a second language. This is because at deeper levels of conceptual and academic functioning, there is considerable interdependence across languages. Conceptual knowledge if developed in one language can help comprehension in another language. In a situation like Australia, with students who comes from many different language backgrounds, the time spent in first language instruction would appear to benefit academic performance in English.

Several research studies have related attitudinal and motivational variables to different aspects of second language acquisition suggesting that these social-
psychological variables play an important role in second language acquisition (Gardner, 1983; Lambert et al., 1967). Motivation in this study refers to students' effort to learn English, students' attitudes toward learning English, and integrative and instrumental motivation (see Chapter 3). Attitudes, on the other hand, refer to subjects' attitudes towards the target language group, and students' perceptions of their parents' encouragement. Attitudes are formed through interaction with one's social context and are reflections of cultural beliefs. Gardner (1979) has stated that:

The motivation to learn a second language has been conceptualised as a combination of a positive attitude to learn the language and the effort expended in that direction...... Social attitudes are relevant to second language learning not because they directly influence achievement but because they serve as motivational supports.... They make a direct link between the cultural milieu and the motivation to acquire a second language, and proficiency in that language (p. 205).

The present researcher's interest concerns children's attitudes to learning English as a second language in an Australian context where children are not only influenced by the school culture, but also by interaction with a wider environment outside the school.

One of the socio-psychological factors within the students' environment is the parental role that might foster or influence students' learning English as a second language. The importance of parental influence in second language learning is suggested by research findings (Clement, 1980; Colletta et al., 1983; Gardner, 1985; Lalonde & Gardner, 1984) showing that this variable is a relative predictor of achievement in a second language. Parental influence
was a variable included in the present study. As mentioned earlier (see Chapter 3 for details), parental influence according to Gardner (1985), can be divided into active and passive roles. While active parental influence refers to the parents' encouragement of and involvement with the students' learning of a second language, passive role refers to the parents' general positive attitudes toward the target language group and culture. This passive influence would be important because, as evidence has shown (Gardner & Smythe, 1976; Gardner, 1979, 1984), the attitudes that the students acquire provide support for their level of motivation. In the present study it was hypothesized that parents who actively encouraged the children in the use of English as a second language would provide opportunities for contact with the Australian society and culture.

One of the interesting questions in the present study was to what extent parents become actively involved in their children's English learning and how this was affected by the attitudes they held towards Australian society?

The study reported here was designed to investigate the role of first language (Farsi) literacy (writing ability) on English writing in a second language among a group of Iranian primary school children in Sydney. The study also explored attitudes among Iranian primary school students in Sydney, towards learning English and towards Australian people. A majority of the children had been in Australia for a relatively short time (1-5 years) while their parents completed higher degrees at Australian universities. Thus, this group is distinct in that all children received continuing instruction in their first language, Farsi, as well as informal experience of Farsi in home and community contexts.
This study examines two main questions. One concerns whether students' writing performance in their first language (Farsi) affected their English writing proficiency, and in particular, whether the level of their writing ability in Farsi was related to their writing ability in English. The second question concerns the relation between attitudes toward learning the second language and proficiency in that language. Specifically, this study addresses the following research questions:

1- To what extent is Iranian primary school children's proficiency in second language writing skills (English) related to their first language (Farsi) writing skills?

2- What is the influence of motivation and attitude variables on the acquisition of English proficiency?

3- What is the influence of parental roles in students' attitudes and motivation in learning English and also their acquisition of English proficiency?

4- Does children's performance in a second language relate to their intelligence, and length of residence?

This chapter describes the use of both quantitative and qualitative research methodologies to answer the research questions relating to assessment of children's writing in the two languages and also their attitudes towards learning a second language.
5.2 Subjects and their school

Seventy children from Grades 3, 4, and 5 from the Persian Vahdat School participated in this study, as did their parents who were living in Sydney for study or employment purposes. The children all attended a daily program of education in a regular Australian primary school. They were also attending on Saturday and Sunday an Iranian school located in Matraville (in Sydney) where they followed the standard Primary School Iranian curriculum, and where all instruction was in Farsi. All children had attended Farsi medium schools before coming to Australia, and had attained their initial literacy in Iran. Children in the Primary Iranian school (weekend) must follow the curriculum and program provided by the Department of International Education in Iran in order to facilitate their re-entry into the Iranian academic system.

The sample consisted of 36 girls (52%) and 34 boys (48%). The average age of children was ten years with a range from 8 to 12 years old. The average number of years they had lived in Australia was 3.3 years, with a range from one to five years.

5.2.1 Picture of the Iranian school in Sydney

The Persian Vahdat school was established in 1991 as a weekend school (Saturday and Sunday) for Iranian parents who came to Australia as post-graduate scholarship students. It was funded initially by the parents
themselves, but later on received some financial support from the Australian "Ethnic Affairs" Department based on the regulations of this department. At the time of this research, the total number of students enrolled from first grade of primary school to year ten of high school was around 240.

Teachers in this school are well qualified teachers with years of experience in Iranian schools in Iran. All were Persian language teachers who have had no teaching experiences within the Australian education system. Most of the teachers in this school are employed from the Iranian Ministry of Education and they received their salary from the Iranian government. The educational program of this school is accepted by the Iranian Ministry of Education.

The Iranian school is not only a resource to instruct children in their own language, but it also provides a social and cultural context in which knowledge is obtained. Children in this school have acquired the home cultural knowledge presumed by the instructors and textbook materials. Teachers in this school are trying to teach about the children's culture in order to respect their home life style and values. Also, the quality level of the educational experiences for students is similar to those for Iranian students in Iran.
5.3 Instrumentation

This section describes the instruments used in the study. Instruments are described under three headings: measures of students' writing, measures of students' and parents' attitudes, and students' intelligence measure.

5.3.1 Measures of students' writing

In order to obtain an estimate of writing skills in Farsi and English, children were asked to write a descriptive essay and a comparative essay in each language. The main question in this study was to what extent first language writing skills affected second language writing skills. Three indicators (linguistic productivity, holistic schemes, and technical skills) were selected to assess students' writing skills in Farsi and English.

As mentioned in Chapter 4, it was important to assess both quantity and quality of students' writing. Hence, children were asked to write both descriptive and a comparative essay. The descriptive essays required children to write a description of a picture which showed a Sunday market. In the comparative essays they had to compare a friend at the Iranian school with a friend in the Australian school, and to think about how these two are alike and different.

The picture of a Sunday market was selected firstly because it consisted of items familiar for the children, and secondly because it could be found in both cultural contexts (Paddy's market in Sydney is very similar to some of the weekend markets in Iran). Familiarity with a topic according to Brien (1992),
leads to clear organisation in school children's writing. When children have a background knowledge about the written topic, the quality of writing might be improved.

In the descriptive form or style, when children look at a picture and write about the content of that picture, they might think about events and specific people, perhaps place the events in sequence in time, and then describe through a narrative account a type of "story". Or they might simply describe what they observe.

In the comparative form, children might be expected to develop comparisons between two different things and thus express a range of comparative judgments such as "different", "better", "shorter", and so on. This type of writing requires children to think more abstractly than does descriptive writing.

In the present study, the written compositions of children were analysed on the basis of the following three categories:

(a) linguistic productivity;
(b) holistic schemes; and
(c) technical skills.

The reasons for selecting these three indicators were explained in Chapter 4.
5.3.1.1 Linguistic productivity

Linguistic productivity is defined operationally as the total number of words, simple sentences, and complex sentences written by a subject. The indicator provides a measure of writing development - the ability to write longer and more complex sentences is one reliable indicator of development (Lanauza & Snow, 1989). In addition, a number of studies have demonstrated that linguistic productivity as measured by the total number of words written is related to quality of writing as measured by general impression scores (Homburh, 1984). Research has indicated that in bilingual settings where students are instructed in both first and second languages, bilinguals often obtained higher mean scores for productivity in their first writing than in their L2 writing (Carlisle, 1986).

Preliminary analyses of the students' writing task involved the calculation of the number of words per essay, the number of simple sentences per essay, and the number of complex sentences per essay. Words were considered to be units bounded by space (e.g., friend, as, and, if). Simple sentences included sentences with compound subjects and a single verb (e.g., There are a lot of people in supermarket). Complex sentences were any sentences with a coordinate conjunction or with an adverbial clause (e.g., My Australian friend is from Japan but she knows English well).

As a further measure of productivity but with an emphasis on a linguistic approach, the study also used the T-unit. The written essay of the students was analysed using the T-unit as an indicator of syntactic maturity. This unit, as Hunt (1965, 1972, 1977) has shown, tends to get longer as students get older.
Hunt pointed out that as school children grow up, their mind can produce better organised sentences. Richardson et al. (1976) used the T-unit as a valid index of syntactic development, as well as in terms of cognitive growth. The T-unit measure also has been used as a measure of syntactic maturity in writing accomplishment across languages and cultures. Other studies using T-units as a measure have shown that students who are more proficient in writing generally write syntactically more complex sentences than students who are less proficient in writing (Carlisle, 1986; Mosenthal, 1983).

In the present study, syntactic maturity was defined operationally as a score from the T-unit length where the T-unit comprised only one independent clause and any conjoined subordinate clauses (e.g., "When the people buy food they have to give money to the seller" Or "Some of the adults are testing the fruit to see if it is good").

The mean T-unit length (MTUL) is defined as the total number of words divided by the number of T-units in the essay. This measure has been used in assessing school students' writing and was used in a number of studies of bilingual children's writing (Carlisle, 1986; Ostler, 1987).

**Scoring of linguistic productivity**

As indicated in Chapter 4, linguistic productivity was selected as a reliable indicator of development in written expression. Linguistic productivity in this study consists of number of words, number of simple sentences, number
of complex sentences, T-units, and mean T-unit length in students' written composition.

An explanation of how linguistic productivity was scored appears in the following section.

**Word count.** As defined above, a word is a unit bounded by space. To count words, the following guidelines were followed. The word count in English and Farsi followed similar guidelines with a few exceptions. If a single word, for example, "bedroom" was written in English as two words ("bed room"), it was still counted as only one, but in Farsi it was counted as two words due to its two different meanings and different writing shapes. If two words such as "super market" were written as one ("supermarket"), they were counted as one word in English as in Farsi.

The total number of words was calculated separately for each of the four essays for each of the students.

**Simple sentence** A simple sentence included sentences with a single or a compound subject but with a single verb. The definition of simple sentences in Farsi is similar to that in the English language. Thus, there were no difficulties with counting simple sentences.

**Complex sentences** As mentioned earlier, the complex sentence is usually defined as a sentence with a coordinate conjunction or with an adverbial clause. In the current study, complex sentences were considered to include both complex and compound sentences. Complex sentences use a
subordinate clause or clauses. Compound sentences use two or more predicates (verbs). As with written English, Farsi essays also used the "and", "because", and "but" as conjunctions with the same meaning as in English (e.g., "I like to play with them because they are my best friends" or "My Australian friend has long hair but my Iranian friend has short hair"). There are few differences between the two languages in the structuring of complex sentences, that would affect their identification or counting.

Measure of T-units As mentioned earlier in this chapter, a T-unit is a syntactic unit consisting of an independent clause and any associated subordinate clauses. In order to identify T-units accurately in children’s English writing, this study followed the guidelines used by Hunt (1965, 1977), Ostler (1987) and Mullis and Mellon (1980, cited in Carlisle, 1986) with the T-unit defined as "a single main clause (or independent clause) plus whatever other subordinate clauses or non-clauses are attached to, or embedded within, that one main clause" (Hunt, 1977, p. 93). The reason for following these guidelines was that they are well documented and have been used in some studies of writing in English (Flahive & Snow, 1980; Karmen, 1980; Kobayashi & Rinnert, 1994; Perkins, 1980). But there is no evidence of this measure being used in any study on Farsi writing. There were some difficulties in measuring the T-unit in written Farsi in the absence of previous rules and examples. After consulting with a person who is a specialist in Farsi linguistics, it was decided to follow the same rules in scoring the T-unit in written Farsi as in written English.
Another measure of syntactic maturity was defined as the mean T-unit length (MTUL). MTUL was calculated as the average number of words per T-unit in each student's essay (Hunt, 1977).

5.3.1.2 Holistic schemes

The second dimension of children's written work to be assessed in this study was holistic schemes. The holistic measure was used to evaluate the overall quality of students' writing. Judgments about the quality of writing should be related to the aims, which relate to the functions of language. This indicator was used to evaluate how well a student had identified and developed the concept of theme or an idea through the essay, how well the student organised schemes, how the writing used structural features, and the number of new ideas introduced by students.

Lloyd-Jones (1977) described an holistic test of writing ability as relying on samples of discourse as whole entities. He pointed out that holistic tests are based on the idea that a valid test of discourse depends upon the examination of a sample of discourse as a whole and not merely as a collection of parts.

The holistic rating scores in this study ranged from 1 to 5, labelled poor, fair, good, very good, and excellent. Judgments were made using five norm criteria from Zellermayer et al. (1991): the number of ideas introduced by the subject, the development of ideas, coherence, the connection between ideas, and the ending. Higher scores reflected more thoughtful, better organised
essays. To give a valid measure, raters must not concentrate on any particular feature of the writing such as grammar or mechanics, but rather focus on the organization and structural features.

Scoring of holistic schemes

According to the literature, reliability of holistic rating is difficult to achieve. While Charney (1984) suggested that rater training, limiting the time of the rating session, and supervision during the session, are factors contributing to high reliability, Freeman and Calfee (1983) and Tedick and Mathison (1995) pointed out there are three factors that influence how evaluators score essays: the essay, the rater, and the context for the rating. Connor (1987) has suggested that having a homogeneous background of the raters in terms of previous experience contributes to high inter-rater reliability.

In the present study, marker reliability was checked after the researcher had coded and scored all essays written in English and Farsi (see Appendix D). Second raters who were trained to use the coding and scoring procedures (one was teacher in Farsi language and the other an educator in English language education) went over a random sample of whole essays, and awarded each a mark. The inter-rater reliability between the researcher and the second marker in Farsi was satisfactory as shown in Table 5.1 (for descriptive essays, Spearman rank order correlation (rho)=0.67; for comparative essays, rho = 0.78). Similarly, for the descriptive English essays rho = 0.83, and for the comparative English essay rho = 0.63.
Table 5.1  Inter-rater Reliability for Scoring of Holistic Schemes

<table>
<thead>
<tr>
<th>Language used</th>
<th>Rank Order Correlation Coefficient of Descriptive essay</th>
<th>Rank Order Correlation Coefficient of Comparative essay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farsi</td>
<td>0.67</td>
<td>0.78</td>
</tr>
<tr>
<td>English</td>
<td>0.83</td>
<td>0.63</td>
</tr>
</tbody>
</table>

5.3.1.3  Technical skills

The final dimension of writing to be assessed was technical skills. These consisted of: spelling, punctuation, grammatical correctness (knowledge of vocabulary and rules of word formation, spelling, and sentence formation), and capitalization. The researcher is well aware that spelling and grammar as measures of technical skills are not the same indicator in both languages. Cummins and Swain (1986) proposed that grammatical competence reflects knowledge of the language code itself and such competence is dependent on the knowledge and skills needed to comprehend the meaning of a statement. However, even though most of the technical skills are different in both languages, it was possible to obtain a measure of technical skills in each language based on the requirements of that language.
Scoring of technical skills

In the current study, three types of technical skills were scored: spelling, punctuation, and grammatical correctness. (Initially it was intended to score capitalization for the English essays but since this is impossible to score in Farsi essays as there is no such rule, capitalization was not used). In scoring these three technical skills (punctuation, spelling, and grammar), subjects' writing in both languages was scored on a five point scale from one to five (poor, fair, good, very good, and excellent)(see Appendix D). In assessing spelling, punctuation and grammar, standard rules in both languages (English and Farsi) were used.

The inter-rater reliability (rank order correlation coefficient) between the two raters in technical skills for the descriptive essay in Farsi was 0.78, and for the comparative essay in Farsi was 0.80. Similarly, for the English descriptive essay, rho = 0.87, and for the comparative essay, rho = 0.60 (see Table 5.2).

Table 5.2 Inter-rater Reliability for Scoring of Technical Skills

<table>
<thead>
<tr>
<th>Language used</th>
<th>Rank Order Correlation Coefficient of Descriptive essay</th>
<th>Rank Order Correlation Coefficient of Comparative essay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farsi</td>
<td>0.78</td>
<td>0.80</td>
</tr>
<tr>
<td>English</td>
<td>0.87</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Overall, these values of inter-rater reliability indicated a satisfactory level of marker reliability.
5.3.2 Measures of students' and parents' attitudes

As the purpose of the present study was to investigate the influence of sociomotivation and attitude variables on the acquisition of English writing skill, several items of Gardner's Attitudes and Motivation Test Battery were selected and adapted (Gardner, 1985; Gardner & Smythe, 1981) for the present study. The Attitudes and Motivation Test Battery (AMTB) was the instrument used to test Gardner and Lambert's socio-psychological theory of second language acquisition in Montreal, the United States, and the Philippine Islands. It has been used in widely different socio-psychological settings, and at the present time the AMTB has been validated with French and English as target second languages. Thus, the instrument was considered useful in an Australian context to provide information about the attitude and motivation of Iranian school children learning English.

Because of the research purpose in the present study, not all scales in Gardner's (1985) battery were included. Selection of scales in this study was based on the situation of subjects and the context (Iranian students who were studying in Australia). The Attitudes and Motivation Test Battery (AMTB) includes various items which focus on the motivation of the language learner. These deal with integrative and instrumental orientations (see Chapter 3). On 4-point scales, the subjects had to mark the extent to which they agreed with the AMTB statements.
5.3.2.1 Structure of the students' questionnaire

To assess the students' attitudes to learning English as a second language, a questionnaire was designed in three sections. The first two sections included: background information about age, gender and the number of years in Australia, the language spoken in the home, languages that the student felt she/he spoke well, and if and where, in the last twelve months, the students had used English outside the school situation. Respondents were also asked to provide a self-report on their abilities in the English language. In the third section of the questionnaire, 31 statements were adapted from a version of the instrument developed by Gardner and Smythe (1981) to assess the subjects' attitudes to learning a second language.

Each subject was asked to indicate on a four-point scale, from strongly agree to strongly disagree, their opinion of 27 statements (see Appendix A for details). These statements were organised under six headings as follows.

(1) Attitudes towards Australian people
There were five positively stated items in this measure. A high score indicated a positive attitude towards members of the Australian society.

(2) Attitudes towards learning English
Six items, three positively and three negatively worded, assessed the student's attitudes towards learning English. The higher the score, the more favourable was the subject's attitudes to learning English.
(3) **Degree of instrumentality**
This scale consisted of four positively worded statements. If the subject rated them highly, it was indicative that he/she was learning English for pragmatic reasons.

(4) **Degree of integrativeness**
In this scale, there were four positive sentences. A high score indicated that the respondent was learning English for integrative reasons, that is, to communicate better with Australians and to become more knowledgeable about their society.

(5) **Parental encouragement**
This scale consisted of eight positively worded statements that assessed the degree to which the students thought that their parents actively encouraged them to learn English.

(6) **Motivational intensity (effort)**
In this measure there were four sentences with ratings given on a three point scale. Items assessed the amount of effort the students expended to learn English.

Based on the study's goals, only selected scales from the Gardner Battery were adapted. Not all of the original items in the Attitudes/Motivation Battery were directly relevant to the Iranian students in this context (Sydney). It should be noted that in rewriting the items, some words and phrases were changed to make them understandable to the students.
5.3.2.2 Reliability of students' questionnaires

The first analysis of the students' data was concerned with the reliability of the questionnaire scales. The reliability (internal consistency) was examined using Cronbach's coefficient alpha. The coefficient is equivalent to the average of all possible split-half correlations for all items that constitute a scale. The coefficients for all scales (Table 5.3) were adequate for the purposes of this study. For the scale on Instrumental Orientation, the reliability estimate based on the original four items was unacceptably low, and two questions were omitted. The remaining two questions (1 & 3) are representative of students' instrumental orientation and give rise to acceptable internal consistency.
Table 5.3  Alpha Reliability Coefficient (internal consistency) for the Scales on the Students’ Questionnaire

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of items</th>
<th>Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes towards Australia</td>
<td>5</td>
<td>.86</td>
</tr>
<tr>
<td>Attitudes towards learning English</td>
<td>6</td>
<td>.74</td>
</tr>
<tr>
<td>Parental encouragement</td>
<td>8</td>
<td>.71</td>
</tr>
<tr>
<td>Integrative orientation</td>
<td>4</td>
<td>.50</td>
</tr>
<tr>
<td>Instrumental Orientation</td>
<td>2</td>
<td>.61</td>
</tr>
<tr>
<td>Motivational Intensity *</td>
<td>4</td>
<td>.60</td>
</tr>
<tr>
<td>(Effort)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For this scale, the items were scored on a 3-point range rather than the 4-point range used for the other scales.

5.3.2.3 The structure of the parents’ questionnaire

The parents’ questionnaire consisted of twenty five Likert-type scales and four multiple-choice scales based on Attitude/Motivation Battery (Gardner & Smythe, 1981) (see Appendix B). The scales were modelled from those used in the student questionnaire. Based on the study’s goals, only selected scales from the Gardner Battery were used. Firstly, if all the items were kept, the entire questionnaire would be too clumsy and time-consuming for the subjects to handle. Secondly, not all the items in the Attitude/Motivation Battery were directly relevant to students in the Iranian school. Five scales
made up the parent questionnaire and the complete instruments are enclosed in Appendix B.

Each parent (subject) was asked to indicate on a four-point scale the extent to which she/he agreed or disagreed with twenty-three belief statements. For the Likert scales, a neutral category was omitted but the response (strongly agree, agree, disagree, and strongly disagree) were scored 5, 4, 2, and 1 respectively to approximate an interval scale (assuming 3 corresponds to a neutral value). These statements were organised under five headings as follows.

(1) **Attitudes towards Australian people**
This scale comprised five items, assessing the parent's attitudes towards members of Australian society. A high score indicated a positive attitude towards members of the Australian society.

(2) **Instrumental orientation**
Four items formed this scale designed to assess the degree to which, for child this, the parent considered that learning English was important for her/his future career.

(3) **Integrative orientation**
In this scale, there were four positive statements. If the subject rated them highly, it was indicative that the parent considered that learning English would enable the child to communicate better and be more knowledgeable about the society.
(4) **Parental encouragement**

Five items made up this scale, designed to assess the degree to which the parent considered she/he encouraged the child, in general ways, to study English.

(5) **Motivational intensity**

In this measure, there were five sentences with ratings given on a three point scale. Items assess the amount of effort the parent expended in helping the child to study English.

A general information sheet was also included with the parent questionnaire which asked for the following information: sex, age, level of education, language spoken at home, and the length of residence in Australia.

It should be mentioned that all questions in the questionnaire were written in English language due to the fact that the majority of parents were studying at the post-graduate level in Australia and were therefore proficient users of English.
5.3.2.4 Reliability of parents' questionnaires

The reliability of parents' questionnaire was assessed again using Cronbach Coefficient Alpha. This reliability coefficient ranged from .53 to .78 (Table 5.4 values which were adequate for the purpose of this study. Initially, the reliability for the scale on Motivational Intensity was low, and one question was omitted. The remaining four questions yielded adequate internal consistency for the measurements of parents' motivational intensity.

Table 5.4 Cronbach's Coefficient Alpha Reliability (inter-items) for the Scales of the Parent Questionnaire

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of items</th>
<th>Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Towards Australia</td>
<td>5</td>
<td>.78</td>
</tr>
<tr>
<td>Integrative Orientation</td>
<td>4</td>
<td>.67</td>
</tr>
<tr>
<td>Instrumental Orientation</td>
<td>4</td>
<td>.66</td>
</tr>
<tr>
<td>Parental Encouragement</td>
<td>5</td>
<td>.67</td>
</tr>
<tr>
<td>Motivational Intensity (effort)</td>
<td>4</td>
<td>.53</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(46)</td>
</tr>
</tbody>
</table>
5.3.3 Intelligence measures

As previously mentioned in Chapter 2, it appears that bilingual children tend to perform better on non-verbal tests of intelligence and particularly, on the Ravens' test. Therefore, the Raven's Coloured progressive Matrices (CPM), a non-verbal test of intelligence, was used to assess children's intelligence in the present study. According to research evidence, the Raven's test has been widely used as a valid and reliable measure of nonverbal intelligence for bilingual children (Ben Zeev, 1977b; Diaz, 1985; Peal & Lambert, 1962).

This test consists of three sets, each of 12 problems, which take the form of a pattern with a blank space into which one of six figures must be fitted.

In the present study, the intelligence test was used as a control variable.

5.4 Procedures

As mentioned earlier, 70 subjects from the Iranian primary school took part in this study. The instruments were administered on two days during June 1995. This time was selected because children were finishing their lessons in the Farsi program in the Iranian school and therefore, it provided a good opportunity for the assessment of their abilities.

All task items were administered in four sessions over two school days. Each session lasted approximately 30 minutes.
The Farsi writing task was given first to all children in session 1, then, after the writing test but on the same day, all children were given the non-verbal Raven's Matrices Test (session 2). There was an interval of one week between sessions 2 and 3. In session 3, all subjects completed the attitudes' questionnaire. In session 4 on the same day, the English writing task was given to all children. The one week break was considered a sufficient time between writing in Farsi and in English to avoid possible interference between the languages.

In the writing sessions, a poster of a "Sunday Market" was set up in a corner of the classroom facing the children. Children were asked to write anything they knew about the picture. In writing the Farsi essay, children usually asked some questions about the vocabulary and its meaning, but in English writing they were confident and more familiar with writing procedure. During the writing sessions, a potential problem concerned children's talking aloud, to themselves, or with their classmates, about the essay topic. Any such discussion among themselves might have influenced their writing and therefore the researcher asked them to concentrate on their own writing and not discuss it with other students. It took time to control the children's speaking and set up discipline procedures for students' convenience. Children were given enough time to finish their writing. The students were supervised by their own teachers and the researcher. The instructions and the questions were presented in English.

For completing the questionnaire, the researcher first gave directions orally and read the questions aloud in the students' first language. It was essential for children to understand the meaning of statements in the questionnaire to
ensure valid answers. More difficult concepts like "cultural groups" were also explained in the students' first language. Students were directed to reread the questions as many times as they wished until they made sense.

Words and phrases like "accurate", "confidential", "Australian Art and Culture" were explained clearly and simply during the test in the students' first language. Some students required more assistance to complete the questionnaire than others. Where necessary, the researcher and the teachers tried to prompt them indirectly to facilitate completion. It was expected that students would finish the questionnaire in 60 minutes. However, most children in each of the classes completed the task in approximately 45 minutes and everyone had enough time to answer all questions.

For completing the Raven's test, first the answer sheet was given to children. Then it was explained clearly to children what they had to do with this task, and they were also asked to write their birthday date on the answer sheet. After that, the booklet of the Raven's Progressive Matrices Test was distributed to the children. The time was strictly controlled for this session in accordance with the standardised test procedures. This session however, was not familiar for the children, because it was the first time they had been asked to take an intelligence test.

Parent questionnaires were sent home with the students. The parent questionnaire package included a questionnaire, a return stamped, addressed envelope, and a letter outlining the general purpose of the research, assurances of confidentiality and a request for their participation (see
Appendix C). The parents were requested to complete the questionnaire, and return it through the post.

There were 65 cases where questionnaire data were obtained from at least one parent of each child. The parent response rate was thus 94 per cent. There were 39 fathers and 26 mothers who responded. There were eight cases where the parents had more than one child enrolled in the Persian Vahdat School. These parents were scored separately for each child.

5.6 Summary

This chapter has presented and described the overall structure of the research project and detailed the method of data collection. It also indicated that results of the inter-rater reliability between the two markers on two measures of writing skills. The inter-rater reliability of holistic schemes and technical skills were satisfactory.

The Alpha reliability coefficient for the scales on the students' and parents' questionnaire were also satisfactory for the purpose of this study.
Chapter 6

Results and discussion
THE ROLE OF FIRST LANGUAGE ON SECOND LANGUAGE ACQUISITION

6.1 Introduction

The Interdependence Hypothesis proposed that bilingual children are able to transfer skills from their first language for use in their second language. It suggests that instruction or exposure in a first language not only develops skills in that language, but also enhances a deeper conceptual and linguistic proficiency in the second language. With respect to writing skills it means that language operations such as writing performance in a second language, are largely dependent on writing ability in a first language. Several researchers have commented that a similarity between first and second languages may facilitate learning of a second language. But what if the
languages and their linguistic and writing system differ widely from one another? Little is known about bilingual children's writing when their first language is Farsi and their second language is English.

This study sought to examine whether primary school students' first language writing ability could transfer to their second language writing proficiency in spite of differences in the writing systems between the two languages.

As the main focus of the study is on children's writing abilities in terms of linguistic, holistic, and technical skills in both languages, different types of writing were analysed for better interpretive purposes. Thus, as mentioned in Chapter 4, students were required to write two different essays (descriptive or comparative). In the subsequent analysis, the type of essay (descriptive and comparative) was used as a moderator variable to see if it changed the relationship between first language proficiency (L1) and second language (L2) writing skills.

Turning to the present chapter, results are organised around the key questions: Firstly, did students' performance in English writing (L2) correlate with their performance in Farsi writing (L1)? Secondly, how well did students perform in writing in Farsi and English in both descriptive and comparative essays and was there evidence of difference in performance?

The first part of this chapter begins with a short discussion about qualitative aspective of students' writing as observed by the researcher. The second part of this chapter then reports the quantitative analysis of second language
writing proficiency as it is related to first language ability. That is, the relationship between first and second language writing proficiency was examined. For testing hypotheses, data were analysed through the statistical package SPSS.

6.2 Analysis of students' written essays

Some examples of students' writing in Farsi and English

It is valuable to acknowledge the quality of the students' writing before presenting quantitative analyses of their writings. As mentioned earlier, this study assessed the writing skills of children who attended a Saturday and Sunday Iranian school in Sydney (for details see Chapter 5). The classrooms in which testing was carried out were traditional teacher-centred in nature in spite of being in an Australian context. That is, teachers led Farsi lessons in conjunction with a workbook for each subject. For example, science and social studies had separate textbooks and instruction was concentrated on these books. Farsi writing instruction followed traditional forms of writing composition in which children were given a topic and then were required to think and write about it. Thus, when children were asked to write about a picture or compare friends in two different schools, it was not surprising that they did well. Many children presented their essays (in both languages) as a series of separate sentences, keeping paragraph form, and they used simple and complex sentence structures throughout. These tendencies probably
reflect children's experience with composition assignments. In spite of keeping the composition form, they often used the format of oral language for their expression. The spelling of children in English and Farsi essays often follow phonetic features of oral language (e.g., buzzy instead of busy; or shoz instead of shoes). Goodman and Goodman (1978), Edelsky and Gilbert (1985) and many others have shown how children learn written language as they learn oral language. Because these children are in the process of becoming bilingual, they are learning written English as they learn oral English.

After reading students' essays in Farsi (e.g., Sample 1, Figure 6.1), the general impression was that, children used a rich vocabulary for making up their stories. They employed interesting terms and vocabulary for describing and expressing their own ideas and essays were generally well structured and organised.

Students often used English words in their Farsi script. Nouns and address terms were the two items most frequently used in English in a Farsi text. Some of these words had an equivalent word in Farsi (e.g., high school, park), and some of them have been written in Farsi script (e.g., picnic, rugby, cinema). Although in the Iranian school students have not been allowed to use English language either in spoken or written form, they usually have used English in informal interaction between themselves (at break time).

Overall, English essays were also well written especially in technical terms, for example, in using commas, question marks and starting new paragraphs with a separate line (Sample 2). In the comparative essays, students often divided the page into two columns and then compared their friends on each
ارزی فرآینده‌ای از بی‌درگیری درارزو به شکست‌آوری درارزو و سپس مانند نامه‌ای در زمان باقی‌مانده، کم‌تر. این مسئله باعث افزایش انتقال آزمایشگاهی شده‌اند. در زمان بازی بازی‌نامی و گوش‌زنی به‌دست آورنده از ایرانیان، هم‌مرجعی می‌شود. در زمان بازی بازی‌نامی و گوش‌زنی به‌دست آورنده از ایرانیان، هم‌مرجعی می‌شود. در زمان بازی بازی‌نامی و گوش‌زنی به‌دست آورنده از ایرانیان، هم‌مرجعی می‌شود. در زمان بازی بازی‌نامی و گوش‌زنی به‌دست آورنده از ایرانیان، هم‌مرجعی می‌شود.

**Figure 6.1 Writing Samples in Farsi and English From Iranian Students**

(Sample 1 and 2).
Compare a friend of IRANIAN school with a friend of AUSTRALIA school.

**Australian Friend:**
- Fast at running.
- Not tidy.
- Good in maths.
- Good in studies.
- He is a good friend.

**Iranian Friend:**
- Fast at running.
- Not tidy.
- Good in maths.
- Good in studies.
- He is a good friend.

**Figure 6.2** Writing Samples in Farsi and English From Iranian Students (Sample 3 and 4).
Come on, come on buy the jewels, the pristains, jewels for only five dollars can you believe that? Five dollars yells out from a man and from the other side, a lady yells fruits, fruits, wonderful fruits buy them for only less than five dollars, trying to get more customers. The person selling jewels didn’t have any luck because not everyone person listened to anything. He said, but the lady had lots of good customers. The people were walking through watching all the things they could buy. Some people were happy at what they had and some didn’t have any.

Figure 6.3 Writing Sample in Farsi and English From Iranian Students (Sample 5).
column (see Samples 3, 4 in Figure 6.2). They produced a variety of creative English writing to compensate for a lack of vocabulary and spelling knowledge (Sample 5). Children's texts indicated they had learned a considerable amount from their mainstream English classrooms. Although this study did not seek to measure what students had learned about English writing, they were well able to combine separate written skills to produce meaningful English text.

In general, these children's writing provided a picture that helps better understand the use and acquisition of writing skills. The children's writing showed that their work emphasised writing as a socially grounded process. That is, children's English writing seemed to be systematic and to display considerable knowledge of English writing. As all children attended a regular school in Australia, where English is a key curriculum area, it is not unexpected that their skills were well developed. As Cummins (1979, 1984, 1991) has emphasised, in the process of becoming bilingual, instruction in a second language can have different effects on different groups of students. These effects will be discussed later for some aspects of English writing skills.

6.3 Relationships between the writing variables

The analysis of the results began with an examination of the correlations among the different measures of the three writing variables: linguistic productivity, technical skills, and holistic schemes in Farsi and English, the
children's first and second languages. The main question in the study was to examine to what extent primary school children's writing proficiency in English language related to their first language (Farsi) writing skills. The various correlations were mainly positive, as reported in Tables 6.1 and 6.2.

To begin with, **Linguistic Productivity** operationally defined as the number of words in English, correlated .40 (p < .01) (Table 6.1) with words in Farsi for Descriptive writing and .43 (p < .001) (Table 6.2) for the Comparative essay. Similarly, the number of complex sentences in English correlated .42 and .43 (p < .001) with complex sentences in Farsi for Descriptive and Comparative essays respectively.

Correlations for words/T-unit were also significant, but of lower magnitude. This finding indicated that students' writing in English in terms of the number of words and complex sentences, and to a lesser extent words/T-units, was related to their first language linguistic skills. This means that in terms of linguistic productivity first language writing was a moderate predictor of English linguistic productivity. However, for simple sentences for the comparative task and for the number of T-units, the relationship was not significant. The pattern of responses for T-units was difficult to explain satisfactorily. In this case, any explanation for the non-significant correlations for number of the T-units used in Farsi and in English would be speculative.

The relationships between the number of words in Farsi and English and also between the number of complex sentences in the two languages were similar to the pattern of results reported in other studies (Carlisle, 1986; Lanauze & Snow, 1989; Ramirez, 1985). Carlisle (1986), for example, found linguistic
variables in Spanish language for Hispanic students' were a significant predictors of linguistic variables in English. That is, researchers have noted that certain functions in writing skills in terms of linguistic productivity in the first language can be related to similar functions in the second language.

Also, the result of the relationship between complex sentences in the two languages are, generally similar to findings of Genesee (1974) and Swain (1975). In two different studies, they found that writing skills of grade 3 and grade 4 French immersion students in sentence complexity were correlated with their English writing (as a second language).

As displayed in Tables 6.1 and 6.2, when number of words and number of complex sentences in writing in Farsi were both used as predictors, they accounted for a significant amount of the variance in the same variables in English. However, in writing Farsi, the number of simple sentences and T-units were not significant predictors of the corresponding variables in writing proficiency in English.

Some caution is needed in interpreting the above results. The significant correlations between the two languages are only moderate in magnitude (e.g., an $r$ of 0.4 indicates that only 16 percent of the variance in Farsi scores is associated with variance in English scores). Secondly, it must be remembered that correlation is not evidence for cause and effect. It might be that other factors (e.g., intelligence) influenced performance in both languages as will be discussed later in this chapter.
Table 6.1 Cross-Language Correlations Between all Measures in Writing Skills in Two Languages (Descriptive essay)

<table>
<thead>
<tr>
<th>Writing skills (Farsi)</th>
<th>Linguistic productivity</th>
<th></th>
<th></th>
<th></th>
<th>Technical skills</th>
<th>Holistic scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>word</td>
<td>simple</td>
<td>complex</td>
<td>T-unit</td>
<td>word/ T-unit</td>
<td></td>
</tr>
<tr>
<td>word</td>
<td>.40**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.05</td>
</tr>
<tr>
<td>simple</td>
<td>.37**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.05</td>
</tr>
<tr>
<td>Linguistic productivity</td>
<td>complex</td>
<td></td>
<td>.42***</td>
<td></td>
<td></td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>T-unit</td>
<td>.19</td>
<td></td>
<td></td>
<td></td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>word/T-unit</td>
<td></td>
<td></td>
<td></td>
<td>.24*</td>
<td>.07</td>
</tr>
<tr>
<td>Technical skills</td>
<td>.13</td>
<td>-.17</td>
<td>.25*</td>
<td>.07</td>
<td>.08</td>
<td>.13</td>
</tr>
<tr>
<td>Holistic scheme</td>
<td>.30*</td>
<td>.01</td>
<td>.36**</td>
<td>.28*</td>
<td>-.06</td>
<td>.03</td>
</tr>
</tbody>
</table>

* p<.01  
** p<.001  
*** p<.0001
Table 6.2 Cross-Language Correlations Between all Measures in Writing Skills in Two Languages (Comparative essay)

<table>
<thead>
<tr>
<th>Writing skills (Farsi)</th>
<th>Writing skills (English)</th>
<th>Linguistic productivity</th>
<th>Technical skills</th>
<th>Holistic scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>word</td>
<td>simple</td>
<td>complex</td>
</tr>
<tr>
<td>word</td>
<td>.43***</td>
<td>.33**</td>
<td>.52***</td>
<td></td>
</tr>
<tr>
<td>simple</td>
<td>.19</td>
<td>.12</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>complex</td>
<td>.43***</td>
<td>.34**</td>
<td>.45***</td>
<td></td>
</tr>
<tr>
<td>productivity</td>
<td>T-unit</td>
<td>.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>word/T-unit</td>
<td>.36**</td>
<td>-.14</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>Technical skills</td>
<td>.10</td>
<td>.06</td>
<td>.14</td>
<td>.09</td>
</tr>
<tr>
<td>Holistic scheme</td>
<td>.36**</td>
<td>-.03</td>
<td>.37**</td>
<td>.13</td>
</tr>
</tbody>
</table>

*  p<.01
** p<.001
*** p<.0001
In the case of technical skills, it can be seen from Tables 6.1 and 6.2 that the correlations of 0.13 (Descriptive essays) and 0.19 (Comparative essays) were very low. The low correlations between technical skills in L1 and those in L2 may be a function of the different nature of the two languages, Farsi and English, in terms of spelling, grammar, and punctuation. That is, whereas skills in productivity or fluency in using language could be expected to transfer from L1 to L2, no such transfer can be expected for technical skills since a new set of rules needs to be learned.

For holistic schemes, the last variable in this assessment of writing skills, the correlation between the two languages for Descriptive essays (Table 6.1), was 0.23 ($p < .01$) while for Comparative essays (Table 1), it was 0.51 ($p < .000$). The significant correlation between the Farsi and English comparative essays provided support for the interdependence hypothesis. That is, holistic measures of writing in L1 appears to be a reasonably good predictor of overall L2 proficiency. In other words, opportunities for developing skills in a first language, particularly in planning, organising, and structuring, might be expected to improve performance in similar tasks in a second language (Bild & Swain, 1989; Cumming, 1989; Hall, 1990; Jones & Tetroe, 1987; Zamel, 1983). This finding is particularly interesting because it indicates that these skills could be transferred to a language that did not have the same orthography or even the same type of writing system as the children's first language. This finding is consistent with Raimes' (1994) claim that in spite of different linguistic background in students' two languages (Japanese and English), the planning and writing strategies acquired in L1 are transferable to L2 among bilingual students. In the present study, the correlation between the two languages on holistic measures in the comparative essay was 0.51. It means
that at the most, there was 25% common variance between Farsi and English holistic measures in the comparative essay.

Again, it should be stressed that correlations between holistic schemes in first and second languages in this case are not indications of cause and effect. Other factors may well have influenced performance in students' writing in both languages.

Given the above results, the hypothesis specifying that "students who have high level of performance in holistic schema in Farsi will perform well in holistic schema in English" was accepted, particularly so for the more difficult comparative essay task.

In addition to examining correlations between similar measures in the two languages, the question of whether different types of writing skills in Farsi were related to other measures in English writing was then addressed. Results of these are reported in Tables 6.1 and 6.2 by the correlation coefficients away from the diagonal.

Thus, as seen in Tables 6.1 and 6.2, linguistic productivity in Farsi, with some exceptions, correlated significantly with English holistic measures. These correlations indicated that students who scored highly on the linguistic variable in Farsi (according to most of the holistic measures) tended to write organised essays in English. In the case of correlations between complex sentences and holistic schemes in both types of essays (r=0.33, p < .001 for descriptive essay; r=0.45, p < .0001 for comparative essay) (Tables 6.1 and 6.2), findings indicated that students with better organised essays also wrote more
complex sentences in their task writings. These results agreed with those in other studies that found that especially among students in the elementary school, holistic scores correspond with linguistic productivity (Carlisle, 1986; Lanauze & Snow, 1989). This moderate correlation between holistic scores in English writing and linguistic productivity variables in Farsi suggested that the subjects who wrote more words and complex sentences in their first language (Farsi) were those also able to better develop and organise an idea in English. Again, there was no relationship between holistic scores in English and technical skills in Farsi essay writing for the descriptive essay but a low correlation for the comparative essay (r = 0.25). In general structural factors in L1 would not be expected to determine writing quality in L2 as measured by holistic scores. One possible interpretation for the relationship between the linguistic measures in first language and holistic scores in second language is that, as writers improve in their first language linguistic skills, they develop skills in other areas of writing affecting holistic abilities. This finding provides evidence for interdependence hypothesis across the two languages.

Although the inter-correlations between the linguistic variables in Farsi on the one hand and holistic variables in English on the other were mostly significant, this was not generally the case for the correlations between linguistic productivity in Farsi and technical skills in English, although there were exceptions for the comparative essay. Since significant correlations were not obtained between linguistic, holistic and technical measures in Farsi and technical skills in English, at least for the simpler descriptive tasks (Table 6.1), it appears that technical skills in terms of spelling, punctuation, and grammar in English are not related to proficiency in the Farsi language. These non-significant correlations seems to support the idea that technical skills in
English writing mostly depend on English (L2) exposure and instruction rather than L1 competence (Table 6.1), except for more difficult tasks (Table 6.2).

The essays (as seen in Tables 6.1 and 6.2), showed that students' writing in the comparative essays had more and higher inter-correlations between L1 and L2 writing skills than was the case for the descriptive essays. The higher score in the comparative essays in Farsi requires comment. Perhaps writing the comparative essay required more mental challenge than did writing the descriptive composition. And, it may be the strength of children's first language concept knowledge enabled them to transfer relevant skills to their second language. Further analysis will focus on this matter.

In summary, the results of the correlations presented above indicated that two of the three variables in first language writing (linguistic and holistic) were related to the corresponding variables in the second language in both descriptive and comparative essays. These findings have been well documented in other studies, and indicated that certain writing skills in a first language are related to some aspects of writing skills in a second language as measured by similar criteria. This suggest that there is a common linguistic and holistic proficiency underlying writing skills in first language and second languages as suggested in other studies (Carlisle, 1986; Cummins, 1979; 1984; 1991; Lanauze & Snow, 1989; Lavin, 1994). In spite of the different writing systems between English and Farsi, the hypothesis that students who had a high level of performance in writing skills in Farsi (except technical skills) would perform well in English writing tasks was tentatively accepted.
As illustrated in Chapter 2, the present finding is consistent with many previous studies (Bamford & Mizokawa, 1992; Carlisle, 1986; Cziko, 1992; Cummins et al., 1984; Rehbein, 1984; Swain, 1986). This result indicates that there is a strong developmental interrelationship between the bilingual child's two languages and that conceptual knowledge acquired in the first language transfers to the second.

6.4 Analysis of differences among writing variables

Turning to a second question of the present chapter, how well did students perform in writing in Farsi and English in both descriptive and comparative essays and was there evidence of difference in performance?

Because there were multiple measures of writing proficiency, the appropriate procedure for testing differences among means in different languages with different types of essays was a multivariate analysis of variance (MANOVA). A MANOVA provides an omnibus test for the set of five dependent variables in respect of (a) the main effect for language (Farsi v. English); (b) the main effect for essay type (descriptive v. comparative); and (c) the interaction of language and essay type.

Since all three were significant, it was then necessary to examine the separate univariate tests to find out where the significant differences occurred. Table 6.3 summarises the results of the separate univariate tests. (This study also
analysed students' writing in different school grades as an independent variable. Although there were grade level differences, the cell sizes were low, particularly in grade four, and this variable was omitted in the present reporting of results. A grade level effect is of course to be expected but is of secondary consideration to the major hypotheses).

6.4.1 Linguistic productivity

The students' written essays in both languages were analysed initially on the basis of linguistic productivity, as previously defined: that is the number of words, simple sentences, complex sentences, number of T-units, and mean T-unit length.

Number of words
As indicated in Table 6.3, the ANOVA (repeated measures) analyses were run for the effects of language, essay, and language X essay interaction in terms of linguistic productivity. Number of words showed a significant main effect for both language and essay, but there was no significant interaction. (The $p$ value for the interaction was .10 showing a trend towards significance).
As shown in Table 6.4, students wrote more words in Farsi (mean = 86.1 words with mean = 83.5 for the descriptive essay; mean = 88.6 for the comparative essay) than they did in English (mean = 58.9 with mean = 66.1 for the descriptive essay; mean = 51.7 for the comparative essay). The students also wrote more words on the descriptive essay (mean = 74.8) than on the comparative essay (mean = 70.1). As noted above, although the interaction was not significant, it did approach significance (p < .10). The finding that the bilingual subjects wrote more words in the comparative Farsi essay than in the English essay is unique. No other study has found this pattern of difference. In general, the comparative essay task could be considered more cognitively demanding task than the descriptive essay task. Students tended to write longer essays (more words) in Farsi than in English for the comparative essay. One possible explanation for the finding in this study is because these bilingual children learned to write in Farsi before learning to write in English, it is possible that more practice in L1 writing enabled them to use more words and vocabulary in their essays.
Table 6.4 Means of Two Essays in Respect of Number of Words.

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th></th>
<th>Farsi</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Descriptive</td>
<td>66.1</td>
<td>25.2</td>
<td>83.5</td>
<td>35.2</td>
<td>74.8</td>
</tr>
<tr>
<td>Comparative</td>
<td>51.7</td>
<td>30.1</td>
<td>88.6</td>
<td>39.1</td>
<td>70.1</td>
</tr>
<tr>
<td>Total</td>
<td>58.9</td>
<td></td>
<td>86.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Simple sentences

A second variable analysed with a repeated measures ANOVA was simple sentences. In this analysis, sentences containing one verb were called simple sentences. As seen in Table 6.5, the main effects for both language and essay were significant. However, no significant interaction effect was obtained between language and essay on simple sentences. As shown in Table 6.6, students wrote more simple sentences in Farsi than in English for both descriptive (mean = 6.3 in Farsi; mean = 5.0 in English) and comparative essays (mean = 4.4 in Farsi; mean = 3.0 in English).

Table 6.5 Summary Table for Separate ANOVA's Linguistic Productivity (number of simple sentences)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effect</th>
<th>SS</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of</td>
<td>Language</td>
<td>129.6</td>
<td>1</td>
<td>18.5</td>
<td>.0001</td>
</tr>
<tr>
<td>simple</td>
<td>Essay</td>
<td>262.0</td>
<td>1</td>
<td>25.3</td>
<td>.0001</td>
</tr>
<tr>
<td>sentences</td>
<td>Language X</td>
<td>2.0</td>
<td>1</td>
<td>.30</td>
<td>.58</td>
</tr>
<tr>
<td>essay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6.6 Means of Two Essays in Respect of Simple Sentences

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th></th>
<th>Farsi</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Descriptive</td>
<td>5.0</td>
<td>2.8</td>
<td>6.3</td>
<td>3.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Comparative</td>
<td>3.0</td>
<td>2.8</td>
<td>4.4</td>
<td>3.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Total</td>
<td>4.0</td>
<td></td>
<td>5.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complex sentences

ANOVA was also used to examine the effects of language, type of essay, and the interaction between language and essay type for complex sentences. The number of complex sentences (containing more than one verb) written by each subject was scored. The result indicated that the main effect of language was significant while the other main effect, type of essay, was not significant. However, a significant interaction effect was obtained for language and essay type (Table 6.7, Figure 6.4). The significant interaction, shown graphically in Figure 6.4, indicates a greater difference between comparative and descriptive essays in Farsi than in English.

Table 6.7 Summary Table for Separate ANOVA's Linguistic Productivity (number of complex sentences)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effect</th>
<th>SS</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of</td>
<td>Language</td>
<td>117.3</td>
<td>1</td>
<td>28.5</td>
<td>.0001</td>
</tr>
<tr>
<td>complex</td>
<td>Essay</td>
<td>3.9</td>
<td>1</td>
<td>1.9</td>
<td>.17</td>
</tr>
<tr>
<td>sentences</td>
<td>Language</td>
<td>23.1</td>
<td>1</td>
<td>5.9</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>essay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

174
As shown in Table 6.8, the mean number of complex sentences occurring per essay was calculated for both descriptive and comparative writing. Although the students wrote more complex sentences in Farsi than in English (mean = 3.7 in Farsi; mean = 2.3 in English), overall the number of complex sentences in the comparative essay was not significantly different from that in the descriptive essay.

Table 6.8 Means of Two Essays in Respect of Complex Sentences

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Farsi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Descriptive</td>
<td>2.2</td>
<td>2.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Comparative</td>
<td>2.5</td>
<td>1.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>2.3</td>
<td></td>
<td>3.7</td>
</tr>
</tbody>
</table>

![Graph showing interaction between language and essay for number of complex sentences](image)

Figure 6.4. Interaction between language and essay for number of complex sentences
**T-Unit**

The written essays of the children were then analysed using the number of T-unit as a measure of syntactic maturity. As defined earlier, a T-unit was defined as a single main clause including subordinate clauses or non-clauses embedded within (Hunt, 1977). When repeated measures ANOVAs were conducted on students' writing in terms of number of T-units in English and in Farsi for the two types of writing (descriptive and comparative essays), the results indicated that there was a significant main effect for both language and essay but no significant interaction effect obtained between language and essay on the T-unit (Table 6.9).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effect</th>
<th>SS</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of T-Unit</td>
<td>Language</td>
<td>79.7</td>
<td>1</td>
<td>9.9</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Essay</td>
<td>203.5</td>
<td>1</td>
<td>33.5</td>
<td>.0001</td>
</tr>
<tr>
<td>Language X essay</td>
<td></td>
<td>13.8</td>
<td>1</td>
<td>1.9</td>
<td>.2</td>
</tr>
</tbody>
</table>

As shown in Table 6.10, the mean number of T-units was greater in Farsi than in English (mean = 7.8 in Farsi; mean = 6.7 in English). Students' descriptive essays contained more T-units than their comparative essays. This pattern occurred for both languages. The present result confirms Ostler's (1987) finding that Arabic ESL students' English writing (in the U.S.) in terms of T-units tended to be longer in their first language (Arabic) than in their second language (English). The finding of Carlisle' (1986) study with Hispanic students in U.S. is also consistent with current study. He found that students
who learned to write in L1 (Spanish) before learning to write in L2 (English) tended to write more T-units as those who learned to write in L2.

Bilingual children in the present study wrote significantly more T-units in descriptive essays than in comparative essays, and also their T-units in Farsi were more than in English writing. Thus, it became clear that there were some notable differences in the length of T-units between the two languages. However, the interaction effect of language and essay was not significant.

Table 6.10 Means of Two Essays in Respect of Number of T-Unit

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th></th>
<th>Farsi</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Descriptive</td>
<td>7.8</td>
<td>3.1</td>
<td>8.5</td>
<td>3.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Comparative</td>
<td>5.6</td>
<td>2.8</td>
<td>7.2</td>
<td>3.1</td>
<td>6.4</td>
</tr>
<tr>
<td>Total</td>
<td>6.7</td>
<td></td>
<td>7.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*MTUL or Mean T-unit Length*

The last measure of linguistic productivity was Mean T-Unit Length (MTUL) which is based upon the total number of words divided by the number of T-units in students' essays. In the 2-way repeated measures ANOVA (see Table 6.11), there were a significant main effects for both language and essay type. The significant interaction between language and essay type in mean T-unit length suggests that the effects of language differed according to essay. In descriptive and comparative writing tasks, again the students produced greater mean T-unit lengths in Farsi than in English (Table 6.12), but the effect
was considerably greater for the more complex comparative essay. This difference in effect according to essay is evident from the means displayed in Table 6.12 and is shown graphically in Figure 6.5.

Table 6.11 Summary Table for Separate ANOVA's Linguistic Productivity (Mean T-Unit Length)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effect</th>
<th>SS</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of</td>
<td>Language</td>
<td>371.9</td>
<td>1</td>
<td>36.3</td>
<td>.0001</td>
</tr>
<tr>
<td>Mean T-Unit</td>
<td>Essay</td>
<td>76.5</td>
<td>1</td>
<td>16.2</td>
<td>.0001</td>
</tr>
<tr>
<td>Language X</td>
<td>Essay</td>
<td>198.6</td>
<td>1</td>
<td>20.7</td>
<td>.0001</td>
</tr>
<tr>
<td>essay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A finding noted in this study that has not been highlighted in other studies of students' writing linguistic productivity was that different types of essays generated significant different numbers of mean T-units and that there was a significant greater incidence of mean T-units in students' first language.

Table 6.12 Means of Two Essays in Respect of Mean T-Unit Length

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Farsi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Descriptive</td>
<td>8.8</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Comparative</td>
<td>9.3</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9.1</td>
<td>11.4</td>
<td></td>
</tr>
</tbody>
</table>
Summary, Discussion: Linguistic productivity

In summary, the results of the analyses presented above demonstrate that students' writing when measured as linguistic productivity had significantly higher means in L1 than in L2. Thus in all five measures - number of words, number of simple sentences, number of complex sentences, number of T-units, and mean T-unit length - the production in Farsi exceeded that in English. There were also differences between essay types. For number of words and number of simple sentences, the production was greater for the descriptive essay than for the comparative, while this result was reversed for the mean T-unit length. Importantly, for the number of complex sentences and mean T-unit length, there was a significant interaction with greater differences occurring between the comparative and descriptive essays in Farsi than in English.

The higher mean of linguistic productivity in the cases of number of words, number of complex sentences, and mean T-unit length in children's L1
writing rather than in L2 confirmed findings reported in other studies (Bamford & Mizokawa, 1992; Carlisle, 1986; Cummins et al., 1984; Cziko, 1992; Ostler's, 1987; Rehbein, 1984).

In following analysis, the differences between the two languages in terms of mechanical skills will be discussed.

6.4.2 Technical skills

Repeated measures ANOVA analyses were also conducted on the technical skills of students' writing (punctuation, spelling, and grammatical correctness) for both descriptive and comparative essays. As seen in Table 6.13, significant differences did not exist when technical skills were compared across the two languages or between the comparative and descriptive tasks. Neither was there a significant interaction between essay and language in technical skills. This result contrasts with that of Arthur (1980) who studied technical writing skills with two groups of ESL students - one group from Latin American whose first language was Spanish and another group from Arabic countries who spoke Arabic as a native language. Because of similarities between the writing systems of Spanish and English and the differences between the graphic conventions of Arabic and English, Spanish students were significantly better than Arabic students at spelling and punctuating English. In the present study, the Iranian students seem to have shown reasonably good technical skills in English, and achieved results comparable to those in Farsi (see Table 6.14).
Table 6.13  Summary Table for the ANOVA on the Technical skills

<table>
<thead>
<tr>
<th>Variable</th>
<th>SS</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>4.9</td>
<td>1</td>
<td>.38</td>
<td>.54</td>
</tr>
<tr>
<td>Essay</td>
<td>.74</td>
<td>1</td>
<td>.14</td>
<td>.70</td>
</tr>
<tr>
<td>Lang X essay</td>
<td>2.18</td>
<td>1</td>
<td>.57</td>
<td>.45</td>
</tr>
</tbody>
</table>

Table 6.14  Means of Two Essays in Respect of Technical Skills

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Farsi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>10.25</td>
<td>3.60</td>
<td>10.72</td>
</tr>
<tr>
<td>Comparative</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>10.54</td>
<td>3.63</td>
<td>10.65</td>
</tr>
<tr>
<td>Total</td>
<td>10.40</td>
<td></td>
<td>10.70</td>
</tr>
</tbody>
</table>

Because children's first language in the present study used a very different writing system, mechanical skills are quite different from those in their second language (English). Hence, there is a possibility that students' proficiency in first language technical skills are not related to their second language technical skills, an aspect discussed earlier in 6.3 (see Tables 6.1 and 6.2).

As Table 6.14 shows there was no relationship between the two languages thus indicating that English and their Farsi technical skills, although both relatively well developed, have become independent of one another. This is not surprising in view of the nature of Farsi writing systems which vary considerably from English writing styles.
6.4.3 Holistic schemes

A final analysis was conducted to determine if the students' performance in writing Farsi, as indicated by a holistic impression score, would differ from performance in English writing, assessed in a similar way. To address this issue, students' writing in both descriptive and comparative essays were compared on the basis of an holistic scheme using as an operational definition up to five marks for each of five criteria. The five criteria used to assesses holistic performance were ideation, development of ideas, connection between ideas, ending, and coherence as described in Chapter 5. The maximum score was 25 marks. Higher scores assumed the essays were more thoughtful, better planned and better organised.

<table>
<thead>
<tr>
<th>Variable</th>
<th>SS</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>75.4</td>
<td>1</td>
<td>2.75</td>
<td>.10</td>
</tr>
<tr>
<td>Essay</td>
<td>48.25</td>
<td>1</td>
<td>2.29</td>
<td>.13</td>
</tr>
<tr>
<td>Lang X essay</td>
<td>160.1</td>
<td>1</td>
<td>11.50</td>
<td>.001</td>
</tr>
</tbody>
</table>

When comparisons were made between students' writing in English and in Farsi for the two types of writing (descriptive and comparative) using holistic assessment, the results indicated that the descriptive essays were not different from the comparative essay, nor was there a significant difference between the two languages (see Table 6.15).
Table 6.16  Means of Two Essays in Respect of Holistic Scheme

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th></th>
<th>Farsi</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Descriptive</td>
<td>16.8</td>
<td>6.5</td>
<td>16.6</td>
<td>5.0</td>
<td>16.7</td>
</tr>
<tr>
<td>Comparative</td>
<td>14.4</td>
<td>6.3</td>
<td>17.3</td>
<td>4.8</td>
<td>15.8</td>
</tr>
<tr>
<td>Total</td>
<td>15.6</td>
<td></td>
<td>16.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

However, in the 2-way repeated measures ANOVA (see Table 6.15), although the main effects of language and essay were not significant, there was a significant interaction between language and essay type (p<.001). A closer examination of the means (see Table 6.16 and Figure 6.3) shows higher scores for the descriptive essay in English and higher scores for the comparative essay in Farsi. As discussed in previous chapters, writing the comparative essay needed more mental abstract activity than did writing the descriptive essay. Thus, when children are proficient in first language writing, although it is likely that the conceptual knowledge needed to write a good essay in L1 is transferable to essay writing in L2, this was more evident in the simpler descriptive task than in the more challenging comparative essay task.

It was assumed that comparative writing task in the present study was representative of children's mental abstract thinking, while the descriptive essay task tended to be narrative. Tables 6.15 and 6.16 showed that while students' writing in comparative type had higher mean in their first language, there was a significant interaction between the two languages and two types of essays. Children performed better in the more difficult task
when using language in which they were strongest, and also they were able to engage in the more creative aspects of the writing task.

As found by Bild and Swain (1989), Cummins et al. (1984), Gonzalez (1986), Langer et al. (1990), and Skutnabb-Kangas and Toukomaa (1976), bilingual children who started school in their first language and then came to a second language context (for example, as an immigrant) and experienced second language instruction, are likely able to transfer skills from their first language to use in their second language. In other words, there appears to be a positive relationship between children's first language-conceptual knowledge, strategies, and academic proficiency-and their second language. Their results, like the majority of those in the present study, support the Cummins' interdependence hypothesis which predicts that the growth of skills in any one language will be reflected by corresponding development of the same abilities in another language. However, the present study's results indicate that the transfer may be more effective (at least initially) for more concrete rather than more abstract tasks.

The differences between languages in the results on the descriptive and comparison written tasks points to the possibility that planning in a second language requires more complex mental activity than does planning in a first language.
The above analyses do not take into account other variables such as general intelligence and length of residence which might have influenced the results. Hence the following section investigates the effects of these additional variables. Students' attitudes and motivation were also hypothesised as important factors in acquisition of a second language and the results concerning these variables will be discussed in Chapter 7.

6.5 Effects of other factors on students' writing

From the literature related to learning English as a second language, particularly in the target language context, two additional variables were identified for the current research: the length of time students had lived in Australia, and students' general intelligence. If these two variables were
related to English writing proficiency, then they needed to be used as control variables in assessing the impact of other predictor variables.

6.5.1 Effect of Length of residence

As discussed in Chapters 4 and 5, students arriving in a target language context, mostly aged between 7 and 9, need some time to master their second language. The period required for mastering school level academic learning in terms of reading and writing, according to research evidence, is around four to five years. For example, Cummins (1985) reported in his studies, to master academic language in terms of reading and writing, bilingual children need to be resident in the host country for around five years.

The average length of residence in Australia for students in the present study was 3.3 years with a minimum of the one year and a maximum of five years. As noted earlier, most of these children were short term residents in Australia while their parents studied for higher university degrees.
Table 6.17
Correlations Between Measures of L2 Proficiency and Length of Time in the Australia

<table>
<thead>
<tr>
<th></th>
<th>words</th>
<th>simple sentence</th>
<th>complex sentence</th>
<th>T-unit</th>
<th>MTUL</th>
<th>technical skills</th>
<th>holistic scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of time in the Australia</strong></td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>.28*.34***</td>
<td>NS</td>
</tr>
</tbody>
</table>

"D" indicate Descriptive essay
"C" indicate Comparative essay
* p<.01
** p<.001
*** p<.0001

As seen in Table 6.17, there were no significant correlations for the length of time in Australia and linguistic productivity (number of words, simple sentences, complex sentences, T-units, and MUTL), either for descriptive or for comparative essays, although some values approached the critical value of .23 required for significance at a .05 level. In other words, just being present in the L2 context did not relate to linguistic productivity. However, there was a low and moderate correlation between technical skills in English (for the descriptive essay \( r = .28; p<.01 \) and for the comparative essay \( r = .34; p<.0001 \)) and length of residence in Australia.

Results reported in 6.3 indicated that students' first language writing skills in terms of technical skills were not related to technical skills in the second language, neither in descriptive nor comparative essays. However, as noted in 6.17, length of residence was significantly correlated only with technical skills for both the descriptive and comparative essays.
Although some research studies have shown that length of residence in an English-speaking milieu is a major determinant of second language achievement (Cumming, 1994; Carroll, 1975; Spada, 1985), the present study indicates it is not valid for academic writing skills assessed linguistic productivity and holistic skills. It may be that, in line with the findings of Cummins (1985), the length of residence in Australia was insufficient to have a significant impact on students' writing skills, except for technical skills.

The findings that length of residence correlated with English technical skills supports the contention that these skills are acquired in the formal education system in Australia. Studying in an Australian school for more than three years on average in this case, enabled children to acquire the technical skills in terms of spelling, punctuation, and grammatical factors in writing composition.

Further, as Edelsky (1991) mentioned, learning a second language happens in a context. If someone wants to study the issues concerning second language acquisition, the context must be explored. The Iranian students in this study have learned English in a social context in Australia. As Edelsky says, the print environment both inside and outside the classroom is a critical resource for learning where writing is used in a particular community. Thus, it seems reasonable to conclude that the Australian context had a major impact on children's writing, particularly in technical skills.

As mentioned previously, subjects in the present study were instructed in the L2 education system while they were in Australia. Obviously, longer exposure to English for these children will result in improvement of control
over the mechanics of English writing. This specific result is consistent with that of Lanauze and Snow' (1989) who found that Spanish bilingual children (grade five) who learned English in U.S. were better in English technical skills than in other aspects of writing skills. Unfortunately, there is no concrete evidence to expect, as yet, that longer exposure to English will improve the linguistic and holistic writing skills of Iranian children who are instructed in an Australian regular school.

However, for students who have had L2 education and have been in Australia for an average of 3 years, there is a moderate positive correlation between L2 writing technical skills and time they spent in Australia.

6.5.2 Effect of intelligence

As mentioned in Chapter 4, there has been little research on the relationship between intelligence and language learning in a bilingual context. Among researchers who have studied the role of intelligence in second language acquisition, there is a preference for use of Raven's test as a measure of nonverbal intelligence (Ben Zeev, 1977b; Diaz, 1983; Peal & Lambert, 1962).

Further, according to Diaz (1983), because bilingual children have unique linguistic experience, this gives them an ability to perform in a superior way in nonverbal tests.
In this study students' general intelligence as measured by the Ravens' Progressive Matrices Test, was intended as a control variable. Table 6.18 and Figure 6.7 summarise the characteristics of the assessment.

<table>
<thead>
<tr>
<th>Mean</th>
<th>Std Dev</th>
<th>Min</th>
<th>Max</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>107.3</td>
<td>14.6</td>
<td>64</td>
<td>135</td>
<td>66</td>
</tr>
</tbody>
</table>

![Graph showing distribution of intelligence scores](image)

**Table 6.18** Results of Students' General Intelligence (Raven's Progressive Matrices Test)

**Figure 6.7** Distribution of Intelligence Scores

As seen in Table 6.18 and Figure 6.7, the students obtained a mean of 107.3 on the Raven's Progressive Matrices Test. For these students, intelligence scores were negatively skewed and overall, were somewhat above the population norm. This is not unexpected since the parents were university students and the children are likely to have higher IQ, given the relative influences of heredity and environment.
Table 6.19
Correlations Between Measures of L2 Proficiency and Students' General Intelligence

<table>
<thead>
<tr>
<th></th>
<th>words</th>
<th>simple sentence</th>
<th>complex sentence</th>
<th>T-unit</th>
<th>MTUL</th>
<th>technical skills</th>
<th>holistic scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Students' general intelligence</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>44*** 0.47*</td>
<td>NS</td>
<td>NS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"D" indicate Descriptive essay
"C" indicate Comparative essay
* p<0.01
** p<0.001
*** p<0.0001

Correlation coefficients were then examined between students' general intelligence and their English writing proficiency. As shown in Table 6.18, there were no correlations between general intelligence and linguistic productivity and also holistic schemes. That is, general intelligence, a factor considered as a potential control variable, did not produce a significant level of change to account for the students' English writing skills in terms of linguistic and holistic skills. However, there was a significant correlation between students' general intelligence and technical skills in both descriptive and comparative essays (for the descriptive essay, r = 0.44; for the comparative essay, r = 0.47, both values with p<0.0001).

This result suggests that the students' English writing in terms of technical skills was more likely to be dependent on general intelligence than was the case for linguistic and holistic variables. It is not sufficient however, to claim that general intelligence has a major impact on technical skills of a writing system. It may be that learning the technical skills in terms of spelling the
words, grammatical correctness, and punctuation needed extra cognitive effort because of the new language system of English.

It may be that intelligence acts as a secondary influence to language learning in a primary school when the curriculum is not specifically designed for bilingual learners.

6.6 The use of control variables

It had been the intention to use intelligence and length of residence as two control variables in looking at the relationship between L1 and L2 proficiency. That is, for any measure of language performance or proficiency, it was intended to look at the relationship between L1 and L2 on the particular measure, after the effects of intelligence and length of residence had been partialled out.

However, for the five measures of linguistic productivity as well as the assessment of holistic schemes, neither intelligence nor length of residence showed a significant relationship. It follows that they could not therefore used as control variables. In contrast, both intelligence and length of residence did correlate with technical skills and hence could be used as control variables. However, in this case, there was no significant relationship between L1 and L2 technical skills for either essay type and hence no need for statistical control.
6.7 Summary and conclusion

The primary question framing "could primary school bilingual students' first language writing ability transfer to their second language writing proficiency in spite of differences between writing systems in two language?", has been discussed in this chapter.

Results of data analyses relating to children's writing skills between the two languages (Farsi and English) in terms of linguistic, technical, and holistic abilities have been reported. While previous research has demonstrated that first language writing proficiency may facilitate second language writing development, there has been no clear evidence of the transfer ability between two languages with different writing systems like Farsi and English.

The findings presented in this chapter provide general support for the view that Iranian children's second language writing proficiency is affected by their first language writing skills. As hypothesised, students who had higher levels of performance in linguistic productivity such as number of words and complex sentences in Farsi performed better in the corresponding measures in English. Moreover, students' performance in holistic schemes in Farsi showed this variable was a significant predictor of students' holistic skills in English writing. That is, students who wrote their essays with a good structure and organisation in their first language were able to write a similarly well organised and structured essay in their second language. This result suggested that academic skills in the second language can be developed through the first language. This picture of students' writing in terms of holistic schemes indicates that planning and strategies in a first language are
transferable to a second language, and is consistent with findings from other studies (Carlisle, 1986; Cummins et al., 1984; Edelsky, 1982, 1986; Edelsky & Jilber, 1985; Lanauze & Snow, 1980).

The Interdependence Hypothesis (Cummins, 1979, 1981, 1984, 1991) states that bilinguals are able to transfer skills from their first language for use in their second language. The findings of present study are consistent with such a theory, at least as it applies to some aspects such as linguistic productivity and holistic skills. They seem to add, however, that bilingual children are also capable of transferring from their L1 to L2 with different writing systems between two languages like Farsi and English.

Because the students' first language linguistic and holistic measures were correlated with their English linguistic and holistic abilities, the possibility arose that there was a common linguistic-holistic proficiency underlying writing skills in the first language and the second language. If there is a common proficiency underlying writing skills in the two languages, a strong argument emerges for continuing the instruction of literacy in the first language.

Questions relating to the effects of length of residence on writing skills are important in terms of the role of time in students' English writing abilities. The findings of no relationships between length of residence and linguistic productivity and holistic measures on the one hand, and a correlation between length of residence and technical skills on the other hand, showed that children's English technical writing in terms of spelling, punctuation, and grammar were more likely affected by the time spent in an Australian
context, particularly in L2 instruction. Moreover, the finding that English technical scores are correlated with the number of years spent in an Australian context, mainly in L2 instruction, suggests that Iranian bilingual students in Australian regular school benefit in this way from adequate exposure to English instruction as Cummins (1979, 1991) proposed. However, the length of residence in an Australian context did not seem to benefit English linguistic productivity and holistic skills. There is no attempt to describe here in detail the role of L2 schooling in learning the rules and conventional skills required for learning writing in a second language.

The finding that children obtained higher linguistic scores in a comparative essay, as compared with a descriptive essay, indicates that they may benefit more in the complex comparative essay task from using their first language rather than in L2. Children's writing task in L1 tended to be more complex and abstract; their writing task in English tended to be more descriptive. The differences between the two types of writing might arise from the fact that children who have mastered their first language are more likely to be successful in a complex writing task in L1 than in English as a second language.

In general, the results discussed in this chapter highlight the importance of first language writing skills in second language writing proficiency. The results were generally consistent with the interdependence hypothesis, namely, that performance of L2 academic/literacy proficiency is influenced by proficiency in L1 academic/literacy skills. It is significant that despite differences between the two languages in terms of Farsi and English writing systems, the results are similar to those reported by Cummins and et al.
(1984), that is the students' level of L1 cognitive/academic development appeared to make a considerable difference in the rapidity with which L2 cognitive/academic proficiency is developed, despite the fact that the languages are so different.
Chapter 7

Results and discussion

MOTIVATION AND ATTITUDES

7.1 Introduction

The purpose of this chapter is to examine the relationships between students' attitudes and motivation in acquisition of a second language and their second language writing skills. This chapter reports on analyses of students' motivation and attitudes in learning second language writing skills in terms of Gardner's (1985) socio-cultural approach. As discussed in Chapter 3, from a social psychological viewpoint, it is assumed that attitudinal/motivational characteristics facilitate the acquisition of a second language (Gardner, 1985). Gardner's work indicates that affective factors, including measures of the
learner's attitudes and motivation, had statistically significant relationships with second language achievement. His work also indicated that second language achievement in a range of social settings was differentially related to two distinct motivational dimensions which he identified as integrative and instrumental orientations (Gardner, 1985; Gardner & Lambert, 1975)(see Chapter 2).

An integrative orientation is characterised by individuals who learn a second language in order to identify with, and become members of, the second language community. An instrumental orientation refers to pragmatic reasons for learning the second language such as getting a job in one's future occupation. The distinction between integrative and instrumental orientations toward second language learning makes a great deal of sense and implies that social context might have a significant impact on second language learning. It should be noted that in a social setting, there are factors that preclude learning a second language for integrative reasons, while at the same time there are other factors which promote second language learning for utilitarian reasons. In the case of Australia, all non-English speaking immigrants would probably be expected to learn English for integrative reasons- to become part of Australian society, as well as for instrumental reasons- in order to get a job or to interact with public service employees.

The Iranian students who participated in this study were subjected to various kinds of influence within the social milieu of Australian cultural contexts. As mentioned previously most of these students were living in Australia
because of their parents' study commitments, thus, their integrative and instrumental motivation may differ from students who were living here as permanent residents. In the school context, students' learning involves not only the acquisition of knowledge but also aspects of the host culture.

The first part of this chapter will analyse the students' background information (see Appendix A) and then examine the relationships between students' attitudes and motivation and their English writing achievement. The second part of this chapter examines the role of parental attitudes and motivation in students' language writing as well as on their attitudes and motivation. Given the previous studies discussed in Chapter 3, particularly Gardner's (1975, 1985) work, it was expected that parents influence on children's second language acquisition would be through both active and passive components. While the active parental role refers to the parents' direct encouragement of and involvement with student's learning of a second language, the passive role related to parents' general attitudes toward the second language community. The present study sought to investigate how parents' attitudes affect children's attitudes to and achievement in learning English.
7.2 Background information on Iranian students

Prior to reporting the main results, the initial analysis of students' background information is reported. As indicated in Chapter 5 (methodology), the students' questionnaire was divided into four sections (see Appendix A). The first two sections sought background information about age, gender and the number of years in Australia, the language spoken in the home, languages that the student felt she/he spoke well, if and where, in the last twelve months, the students had used English outside of the school situation, and amount of time the students spent watching TV. Respondents were also asked to provide a self-report on their abilities in the English language.

In the third and fourth section of the questionnaire, 31 statements were adapted from a version of the Gardner and Smythe (1981) instrument to assess the subjects' attitudes to learning a second language.

The questionnaire was completed by 70 students from the Persian Vahdat School. These students were studying in grades 3, 4, and 5 of the primary school on Saturday and Sunday. At the same time they attended regular Australian primary schools. The education program in the weekend school follows the Iranian primary education curriculum.

Responses to questions in the students' background information questionnaire were analysed with regard to their participation in social situations where English may be used and to their actual use of English.
outside of school. When asked to indicate what opportunity subjects had to use English outside of school and in what ways and where, only four percent of students said that they never speak English outside the school, while a large number of students (47%) said that they speak English with their friends, neighbours, in the park, and during shopping. Thirty five percent of students said they speak English both at home with their parents and siblings, and with their friends outside the house.

With respect to the languages spoken at home, students responded that Farsi was not the only language spoken at home. Some 25 percent of students reported the use of Farsi only in their home, while 67 percent reported using both English and Farsi, and 8 percent of students reported using other languages such as Turkish and Kurdish according to their ethno-linguistic background.

For most students, after beginning school in Australia, speaking in English appears to have taken place with friends, as well as with brothers and sisters. English was the language used almost exclusively outside the home. Use of the Farsi (Persian) language for students was at the Iranian school on Saturday and Sunday, at home with parents, and at some other Iranian community activities. Although parents used Persian predominantly with their children, English had already become the dominant language between siblings.
With respect to participation in Australian culture, when asked to indicate how much they watched TV each day, most students (59%) said that they watched TV between two and five hours each day, while 27% of students said that the maximum was one hour per day. Only three percent of students said they never watched TV.

The Iranian students in this study reported a greater participation in activities and situations involving use of the English language than Farsi: they watched more English television programs, and they spoke English more often with their siblings and with neighbourhood playmates, as well as out of the family setting. Unlike Van der Keilen's (1995) findings that indicated English elementary school students who attended French immersion programs in Montreal and Quebec City had limited participation in French language social activities, subjects in current study were actively involved with the target language groups.

The patterns of language use are reflected in students' self-ratings of their current proficiency in writing, understanding, reading, and speaking in English. The high level of confidence that students have in their use of English is indicated by their self-ratings in English speaking (65% fluent), reading (62% fluent), understanding (60% good understanding), and writing (50% good writing).

It is known that socioeconomic factors may influence the expression of students' attitudes and also children's second language achievement. Yu and
Bain's (1980) findings indicated that there are significant differences between the Chinese-Canadian children of middle class and the Hong Kong Chinese children of working class families in the process of language acquisition, whether this process occurs in the mother tongue or the second language. Diaz (1985) also found that the degree of bilingualism is confounded with socio-economic status in bilingual populations in the United States. Hence, this factor should be controlled in the process of data analysis. One of the unique characteristics of the current study is that the children were from similar socio-economic backgrounds. All children were from middle to upper-middle class families and most parents (mainly fathers) came to Australia to study at the postgraduate level at university.

7.3 Responses by students on the Attitudes/Motivation scales

As explained in Chapter 4, six scales were devised to assess the attitudes and motivations of the Iranian students in learning English as a second language. Results for the six scales making up the Attitude/Motivation Complex are shown in Table 7.1. It should be noted that for the Likert scales, a neutral category was omitted and the responses (strongly agree, agree, disagree, and strongly disagree) were scored 5, 4, 2, and 1 respectively to approximate an interval scale (that is, the score 3 corresponds to "neutral" although this was not an option offered to respondents). Except for the effort items which were scored on a three point scale from 1 to 3, all the items in this section had mean ratings above three.
Table 7.1 Mean Scores of the Seven Composite Factors from the Attitude/Motivation Complex

<table>
<thead>
<tr>
<th>COMPOSITE SCALE</th>
<th>Number of items</th>
<th>Mean scale score per item</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Attitudes towards Australian</td>
<td>5</td>
<td>3.6</td>
<td>1.07</td>
</tr>
<tr>
<td>B: Attitudes towards learning English</td>
<td>6</td>
<td>4.5</td>
<td>.66</td>
</tr>
<tr>
<td>C: Parental encouragement</td>
<td>8</td>
<td>3.8</td>
<td>.75</td>
</tr>
<tr>
<td>D: Integrative Orientation</td>
<td>4</td>
<td>4.4</td>
<td>.67</td>
</tr>
<tr>
<td>E: Instrumental Orientation</td>
<td>2</td>
<td>4.4</td>
<td>.96</td>
</tr>
<tr>
<td>F: Motivational intensity (Effort)**</td>
<td>4</td>
<td>2.4</td>
<td>.49</td>
</tr>
</tbody>
</table>

* Based on total scale score mean and S.D. divided by the number of items.

** "Effort" items scaled on three level from 1 to 3.

As shown in Table 7.1, the factor with the highest mean score was the "Attitudes towards learning English" scale (mean = 4.5). In separate items on this scale, 78 percent of subjects strongly agreed that learning English "was great", and 70 percent of students strongly agreed that they would not give up learning English when they leave Australia. Moreover, 70 percent of the students agreed that learning English was not a waste of time and 58 percent
of subjects strongly agreed that they planned to learn as much English as possible.

Two other scales had mean scale scores per item of above 4.0. In the "Integrative Orientation" factor (mean = 4.4), 72 percent of students indicated that they strongly believed that learning English was important for them because they were able to understand better the Australian society and converse with people in this society. In the "Instrumental orientation" factor (mean = 4.4), 69 percent of subjects strongly agreed that learning English would be useful in getting a good job in future.

As mentioned in previous chapters, these two orientation (Integrative & instrument) are important to learning a second language. The mean scores obtained for these two orientations (each 4.4) indicated that subjects' motivation for learning English tended to be high. The relationships between integrative and instrumental orientation with English proficiency outcomes is another story and will be discussed later in this chapter.

Overall, the attitudes of the subjects towards Australians can probably be described as indifferent or "non committal" (mean = 3.6). Forty eight percent of subjects agreed that they have a favourable attitude towards Australian people, with 44 percent of subjects strongly agreeing that they would like to get to know Australian people better.
In the "Parental Encouragement" factor (mean = 3.8), a majority of the students strongly agreed that their parents had great interest and offered help in their learning of English (52%), while their parents stressed that English will be important for children when they leave Australia (81% agreed or strongly agreed).

Lastly, in the "motivational intensity" factor, when children were asked whether they have any problems learning English, 73 percent answered that they immediately asked the teacher for help, and when their teacher wanted someone to do an extra English assignment, 50 percent of them said they would definitely volunteer to do it.

7.3.1 Relationships among the scales

Apart from content validity of the scales as discussed in Chapter 5, the Attitude/Motivation Complex was also examined for its construct validity. Pearson correlation coefficients were computed among the six composite scales (Table 7.2 shows Cronbach Alpha reliability coefficients on the diagonal)(see Chapter 5). Except for somewhat lower correlations for the "Effort" factor, most of the composite factors were moderately associated with one another, with coefficients ranging from .30 to .60. In other words, these data showed that the six attitude/motivation variables were positively correlated with each other as would be expected and hence providing
evidence of construct validity. In other words, these factors do have something in common, namely, a favourable orientation towards the learning of English.

In this situation, however, the internal consistency (Cronbach Alpha values) of the six scales should be higher than the inter-scale correlations. Although this is generally the case in Table 7.2, the scales for integrative orientation and instrumental orientation are exceptions. These two scales have relatively lower internal consistencies and a relatively stronger correlation \( (r = .63) \) between them. Conceptually, however, these aspects of the orientation to learning English are different for important theoretical reasons (as discussed in Chapter 3) and there is not sufficient justification to combine them. Results drawn from these two scales, however, do need to be interpreted with due caution because of strong empirical evidence for their separate identity.
Table 7.2 Pearson Correlations Coefficients of the Composite Factors in Students' Attitude/Motivation Complex with Reliability Coefficients on the Diagonal

<table>
<thead>
<tr>
<th>Attitudes tow OZ</th>
<th>Atti tow learn Englis</th>
<th>Parental encouragement</th>
<th>Integrative orientation</th>
<th>Instrumental Orientation</th>
<th>Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes towards Australian</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude towards learning English</td>
<td>.39**</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental encouragement</td>
<td>.47***</td>
<td>.48***</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrative Orientation</td>
<td>.47***</td>
<td>.25*</td>
<td>.46***</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>Instrumental Orientation</td>
<td>.47***</td>
<td>.30*</td>
<td>.43***</td>
<td>.63***</td>
<td>.61</td>
</tr>
<tr>
<td>Motivational intensity (Effort)</td>
<td>.29*</td>
<td>.28*</td>
<td>.39**</td>
<td>.27*</td>
<td>.30*</td>
</tr>
</tbody>
</table>

*** p< .0001  
** p< .001  
* p< .01

7.4 Relationships between Attitude/Motivation scales and English achievement

One of the primary objectives of this research was to identify the effects of affective factors in second language learning. As mentioned earlier, in Gardner's (1985) work, affective factors consisted of students' attitudes and motivation and also parents' attitudes were found to impact on children's second language acquisition. In this study, based on Gardner's socio-
educational model, it was hypothesised that children's attitudes and motivation would be related to their writing achievement in English. Also, parents' influence on children's English writing would be through both active and passive components (for details see Chapter 3).

7.4.1 Do Attitude/Motivation variables predict second language writing skills?

In order to examine the relationships between attitudes/motivational factors and students' English writing variables, Pearson correlations were computed between these two sets of variables. The attitude measures were attitudes towards Australian people, Integrative Orientation, Instrumental Orientation, and Parental Encouragement; the motivation measures were the Attitudes Towards Learning English and Motivational Intensity (adapted from Gardner (1985)). English writing proficiency criteria, as dependent variables, consisted of linguistic productivity, technical skills, and holistic scheme (see Chapter 4 for details). With respect to the importance of linguistic productivity in children's writing, this criterion was divided into the number of words, number of simple sentences, number of complex sentences, number of T-units, and mean words/T-units. Correlations were examined for both descriptive and comparative English essays.
Tables 7.4 and 7.5 present the results of correlations between the six attitudes/motivation predictor variables and the different writing criteria.

Table 7.4  Correlation Coefficients Between the Attitude/Motivation Variables and Writing Criteria (Descriptive essay)

<table>
<thead>
<tr>
<th>Writing criteria</th>
<th>Att OZ</th>
<th>Att Eng</th>
<th>Par-enc</th>
<th>Integ</th>
<th>Instr</th>
<th>Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic productivity</td>
<td>-</td>
<td>-</td>
<td>-.25**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>words</td>
<td>-</td>
<td>-</td>
<td>-.21*</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>simple</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>complex</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>.20*</td>
</tr>
<tr>
<td>T-unit</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>.22*</td>
</tr>
<tr>
<td>word/T-unit</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-.23**</td>
</tr>
<tr>
<td>Technical skills</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Holistic scheme</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. **p<.05; *p<.10
Att OZ = Attitudes towards Australian people; Att Eng = Attitudes towards learning English; Par-enc = children's perception of parental encouragement; Integ = Integrative orientation; Instr = Instrumental orientation.
Table 7.5 Correlations Coefficients Between the Attitude/Motivation Predictors Variables and English Writing Criteria (Comparative essay)

<table>
<thead>
<tr>
<th>Writing criteria</th>
<th>Att OZ</th>
<th>Att Eng</th>
<th>Par-enc</th>
<th>Integ</th>
<th>Instr</th>
<th>Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic productivity words</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.22*</td>
<td>-</td>
</tr>
<tr>
<td>simple</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>complex</td>
<td>-</td>
<td>.20*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T-unit</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>word/T-unit</td>
<td>.21*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Technical skills</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Holistic scheme</td>
<td>.22*</td>
<td>.21*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. **p<.05; *p<.10
Att OZ = Attitudes towards Australian people; Att Eng = Attitudes towards learning English; Par-enc = children's perception of parental encouragement; Integ = Integrative orientation; Instr = Instrumental orientation.

Based on the expectation that children's English writing is determined by their attitudes and motivation toward learning English, and claims of Gardner's (1985) work that attitudes and motivation have an impact on learning a second language, it was hypothesised (Hypothesis 2.1, 2.2, and 2.3) that the six attitude/motivation variables are positively correlated with English writing skills (Linguistic productivity, technical skills, and holistic schemes).

The findings, however, showed few significant correlations between the children's English writing and their motivation and attitudes. There were
weak and negative correlations between writing criteria and attitudes and motivations. For example, attitudes toward learning English negatively correlated with simple sentences for children's descriptive essay \((r=-.25; p<.05)\) suggesting that students with poorer attitudes wrote in a simple style. Positive correlations between attitudes towards Australians and linguistic and holistic variables and other low and negative correlations between these variables indicated that positive attitudes towards Australian people might promote their children's writing skills but only to moderate level (Tables 7.4 and 7.5).

Results from comparison of correlations between students' English writing skills (linguistic, holistic, and technical skills) and their attitudes/motivational factors indicated that (Table 7.4, descriptive essay) the amount of effort the students expended to learn English in an Australian context correlated positively \((r = .20, r = .22; p<.10)\) with number of complex sentences, number of T-units, but negatively \((r = -.23; p<.05)\) with words/T-unit. This pattern suggests that children making more effort in terms of motivation were using more complex linguistic structures. In case of negative correlation between students' effort and length of T-unit, result suggests that the more students' effort, they wrote the shorter length of T-unit.

In contrast to the descriptive written essays, for the comparative essay (Table 7.5), linguistic productivity had a low positive correlation with some attitude variables \((r = .22\) with instrumental, and \(r = .21\) with attitudes toward
Australians with \( p \) value of <.10). In general, among the different writing
criteria, the holistic variable had a low positive correlation (but not high)
with attitudes/motivation factors (\( r = .22, p < .06 \) with attitudes towards
Australian, and \( r = .21, p < .07 \) with attitudes towards learning English).
Overall, few significant correlations were obtained but these were quite low,
indicating a possibility that children's writing aspects could be influenced by
their attitudes and motivations but not providing strong evidence for this. It
must be noted that children's attitudes and motivation towards learning
English as a second language were measured with relatively few questions
and it is possible that responses had relatively weak content validity.

These low and weak relationships between students' writing skills and
attitudes/motivational variables needs further explanation. As pointed out
already, perhaps children's attitudes and motivation towards learning
English as a second language were not validly measured by their responses to
items on the pencil and paper instrument. Another possibility for the weak
relationships between children's attitudes and their English writing might be
that children's attitudes changed during their learning and their use of a
second language. As mentioned in the literature review (Chapter 3), Gardner
(1985) pointed out that experiences associated with second language learning
can have an influence on a student's attitudes and motivation and concluded
that students who enrolled in long term language learning programs because
of lack of appropriate experience with a second language community, their
initial attitudes were often positive toward the context. After some time,
their attitudes might tend to come into line with their second language
settings. Gardner (1985), then mentioned that the act of becoming proficient in the second language may not produce changes in social attitudinal and motivational factors, but when the language course is over and when students have more experiences in contact with the second language community, it is possible that their attitudes toward the target language context might change. In the case of this group of Iranian students it would be interesting re-examine attitudes once students have return to Iran. Changing attitudes and motivations in both positive and negative cases seem to be related to students' experiences with their environments.

This weak relationship between students' writing scores and attitudes/motivational scores in the present study appear to reflect students' total experiences within the Australian context. Because there was not any information about children's initial attitudes towards learning English and Australian society, it would however be difficult to jump to conclusions about changing attitude factors.

Another possible explanation for the lack of a significant relationship between attitudes/motivational measures and students' English writing might be related to differences in the concepts that is, attitudes (as an affective measure) and writing achievement (as a cognitive measure). As Gardner (1985) pointed out, "The general expectation is that attitudinal/motivational characteristics share some variance in common with achievement in the second language, not all the variance. As a result, it is reasonable to expect
the pattern of relationships to be relatively unstable, even though the general relationships are maintained" (p. 74).

As discussed in the literature, there has been a great deal of research on the relationship between language learning and motivational factors. Research evidence has shown that second language achievement in different social settings is differentially related to two distinct motivational dimensions-integrative (those who learn the language in order to become like members of the target language group) and instrumental (those who learn the language for practical reasons, such as passing an examination or getting a job). As shown in Tables 7.4 and 7.5 however, there was no significant correlation between integrative and instrumental variables and students' English writing skills in the present study. It may be, as shown in Table 7.1, that the students in this study had quite high and positive attitudes and motivation towards learning English (means of 4.4 and 4.5 on a 5-point scale) with mainly low variability (SD per item ranged from .66 to 1.07 on the 5-point scales). Hence, the possibility of finding high correlations with writing skills was greatly reduced because of the low dispersion.

In summary, referring back to Hypothesis Model formulated in Chapter One, it was assumed that attitudes and motivation factors are reflections of sociocultural stimuli and they appear to affect second language acquisition. Hence, second language learning and particularly, second language writing skills, were viewed as ongoing cognitive processes that mediate between social context and learning outcomes. Previous studies (Gardner, 1985; Gardner &
Lambert, 1972; Oller et al. 1977; Ip Lau Chun, 1985) have argued that attitudinal variables have been playing an important role in second language learning. The findings in the present study suggest that the attitudes measures have little impact on English writing variables, even though the mean score of students' attitudes towards learning English and Australian context was positive and high. It can be concluded that these two set variables- attitudinal and motivational factors, and English writing skills- are independent of each others.

Obviously, children are influenced by their parents' attitudes to learning a second language. In the following section, the influence of parental active and passive roles on children's attitudes and motivation in second language acquisition will be investigated.

7.4.2 Do parents' attitudes/motivation predict children's second language writing skills?

While it was assumed that children's attitudes and motivation would facilitate their learning English, the question of how parents' attitudes affect children's attitudes and their achievement in learning the second language warranted consideration.

This section (7.4.2), reports parents' background information such as education level, language spoken at home, and so on. In a second section
(7.5), the results of parents' attitudes/motivational scales are reported. The third section (7.6) is about the parents' influence on children's attitudes and motivation as well as on their achievement in learning English writing.

Parents' background information

All of the parents were requested by letter to participate in this study. There were 65 cases where questionnaire data were obtained from at least one parent of each child. The parent response rate was 94 per cent, where at least one parent returned a completed questionnaire (see Chapter 5 section 4). There were 39 fathers and 26 mothers who responded. There were eight cases where the parents had more than one child enrolled in the Persian Vahdat School. Parents' responses for each child were scored separately.

With respect to the length of residence of the parents, 9 percent lived in Australia less than two years, 55 percent between 2-4 years, and 35 percent for more than 4 years (Table 7.6).

Table 7.6. Parents' Length of Residence in Australia

<table>
<thead>
<tr>
<th>Parents</th>
<th>Less than 2 years</th>
<th>between 2-4 years</th>
<th>more than 4 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>6</td>
<td>36</td>
<td>23</td>
<td>65</td>
</tr>
<tr>
<td>Percentage</td>
<td>9</td>
<td>55</td>
<td>35</td>
<td>100</td>
</tr>
</tbody>
</table>
While most parents responded that Farsi is the language they speak most at home, five parents indicated that their language at home was Turkish or Kurdish (two major languages in Iran).

It seems that parents' influence on children's learning English in terms of active and passive roles depends on the extent to which they can provide opportunities for their children to use the second language, and this is determined by the resources available to them.

With respect to parents' education background, from 65 parents who responded, 56 (86%) had higher education, mainly at postgraduate levels (Table 7.7).

The picture emerges from this report indicated that parents' socio-economic status would affect their children's attitudes to learning English language as consistent with other studies (Diaz, 1985; Yu & Bain, 1980).

Table 7.7. Educational Levels of Parents

<table>
<thead>
<tr>
<th>Parents</th>
<th>Finishing H.S.</th>
<th>College</th>
<th>Higher Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>7</td>
<td>2</td>
<td>56</td>
<td>65</td>
</tr>
<tr>
<td>Percentage</td>
<td>11%</td>
<td>3%</td>
<td>86%</td>
<td>100 %</td>
</tr>
</tbody>
</table>
7.5 Responses by the parents to the Attitudes/Motivational Scales

In assessing the parents' attitudes towards their children's English writing skills, five attitudes scales towards learning English and toward the target language community were adapted from Gardner's Attitudes/Motivation Test Battery (see Chapter 4 for details). Results of mean scores and standard deviations for the five composite factors from the parents' attitude/motivation are shown in Table 7.8. As mentioned earlier, for the Likert scales, a neutral category was omitted and the subjects' responses were scored as strongly disagree, disagree, agree, and strongly agree (1,2,4,5). The score "neutral" (3) was not an option for respondents.

Table 7.8 Mean Scores of the Five Composite Factors from the Parents' Attitude/Motivation Complex

<table>
<thead>
<tr>
<th>COMPOSITION SCALE</th>
<th>Number of items</th>
<th>Mean scale score per item</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrative Orientation</td>
<td>4</td>
<td>3.8</td>
<td>.71</td>
</tr>
<tr>
<td>Instrumental Orientation</td>
<td>4</td>
<td>3.7</td>
<td>.76</td>
</tr>
<tr>
<td>Parental encouragement</td>
<td>5</td>
<td>3.9</td>
<td>.65</td>
</tr>
<tr>
<td>Attitudes towards Australian</td>
<td>5</td>
<td>3.2</td>
<td>.73</td>
</tr>
<tr>
<td>Motivational intensity</td>
<td>5</td>
<td>2.4</td>
<td>.32</td>
</tr>
</tbody>
</table>

* "Effort" items scaled on three level from 1 to 3.
Table 7.8 shows the results of parents' responses to questions on attitudes and motivation in terms of number of items, mean, and standard deviation. All the items had a mean rating above 3 except for the "effort" items which were scored on a three point scale from 1 to 3.

To begin with the "Integrative Orientation" scale, factor attained one of the highest means (mean = 3.8). This factor consists of items about parents' attitudes to their children's learning English. In separate items on this factor, 84 percent of parents agreed or strongly agreed that learning English allowed children to meet and converse with people from different backgrounds. In addition, 68 percent of parents agreed or strongly agreed that learning English enabled children to participate more freely in the activity of other cultural groups. Moreover, 51 percent of parents agreed that learning English would have benefit for children in better understanding and appreciating Australian art and literature. The composition of this factor reflects the general attitudes that parents hold toward Australian culture and the Australian community.

In the "Instrumental Orientation" factor, the subjects obtained a mean of 3.7. The pattern of parents' responses indicated that they tended to see learning English as important to their child's future success, both in terms of their future career (79% agree and strongly agree) and being as a knowledgable person (78%).

The factor titled "Parents' Encouragement" received a mean of 3.9, with parents showing considerable interest in anything to do with children's
English activity (70% agree and strongly agree). Interestingly, 45 percent of subjects agreed that their children should devote more time to English studies, while 32 percent of them disagreed with this item. Further, these parents strongly agreed and agreed that they really encouraged their children to study English (45% and 35%). The pattern emerging here may well be a reflection of the general attitudinal climate in the Iranian community in Sydney, where learning English is vital for them and their children, but it may also present a threat to their native language. As parents know that children must return to Iran they are also concerned that the Persian language must be retained and strengthened.

Table 7.8 indicated that parents' attitudes towards Australians were generally positive. Although 61 percent of parents agreed that Australian people are kind and generous, 24 percent of them disagreed with this statement. Moreover, 58 percent of subjects agreed that Australian people are friendly and hospitable, but 23 percent disagreed with this proposition. Parents also agreed (21%) that the more they learn about Australians, the more they like them, but 58 percent of subjects disagreed with this statement. The less favourable attitudes towards Australian people may result from negative experiences with the target language community. While this interpretation needs more explanation, it is based on common sense attitudes of the Iranian community in Australia.

Finally, in respect of the "effort" there was a mean of 2.4 (out of 3) which is considerably higher than for other factors. Some 66 percent of parents
reported that they had spoken to their child's English teacher about her/his progress, while 58 percent of them claimed to often sit and watch English television programs with their children. In general, parents put effort to their children's English studies and this seemed important to them.

In general the present findings indicated that parents were actively encouraging and helping their children to learn English and that their attitudes towards learning the English language were fairly favourable. Upon further analysis, the reason for their interest in learning English was revealed to be influenced by active roles. In this study, the active component was assessed by the amount of effort parents expended helping children to acquire English (including three composite factors: Parental Encouragement, Parental Instrumental Orientation, and Parental Motivational Intensity). Parents who are actively involved in the learning process may have positive attitudes towards Australian society. It is possible that if parents hold favourable attitudes towards English learning and Australian people (passive parental influence consists of two composite factors: Parental Attitudes Towards Australians and Parental Integrative Orientation), these would affect their active role in supporting their children. The hypothesised relationships between parental influences and student variables in second language acquisition is explored in the following section.
7.6 Parents' influence on children's attitudes and English achievement

In the present study, it was hypothesised that (a) the parental role would influence children's attitudes and motivation; (b) and that students' English writing skills would be affected by parents' attitudes and motivation.

Given previous research suggesting that parental roles in terms of active and passive components have an effect on children's attitudes and motivation to second language acquisition, it was proposed (Hypothesis 3.1 and 3.2) that passive and active parental roles are positively correlated with students' attitudes toward learning English and students' attitudes to Australian people.

Table 7.9 Correlation Coefficients Between Parental Passive and Active Roles and Children's Attitudes and Motivation Dimensions

<table>
<thead>
<tr>
<th>Parental Passive role</th>
<th>Parental Active role</th>
</tr>
</thead>
<tbody>
<tr>
<td>chi atti tow OZ</td>
<td>.28</td>
</tr>
<tr>
<td>p=.02</td>
<td>NS</td>
</tr>
<tr>
<td>chi integr orientation</td>
<td>NS</td>
</tr>
<tr>
<td>chi instru orientation</td>
<td>NS</td>
</tr>
<tr>
<td>chi atti to learning Eng</td>
<td>NS</td>
</tr>
<tr>
<td>chi percept of parenc</td>
<td>NS</td>
</tr>
<tr>
<td>chi effort</td>
<td>NS</td>
</tr>
</tbody>
</table>

It can be seen from Table 7.9 that the correlations between parental role variables (passive and active) and the children's attitudes and motivation factors indicated that only one item from a total of 12 coefficients (children's...
attitudes towards Australians correlated with passive parental role $r = .28$) had a significant correlation, with a value approaching significance at the .05 level. Given that only one of the 12 relationships between parental roles and students' attitudes and motivation scores was significant, it must be concluded in this study that parental roles did not have a major impact. As shown in Table 7.8, the variations in parental scores were small (with low standard deviations) and hence higher correlations could not be expected from such a homogeneous group.

Based on the expectation that children's achievement in second language learning is influenced by parents' active and passive roles with an emphasis on Gardner's (1972, 1985) work, it was hypothesised (Hypothesis 3.3, 3.4, and 3.5) that passive and active parental roles are positively correlated with students' achievement in second language writing skills in terms of linguistic, holistic, and technical skills. Data analyses indicated that only the parental active role yielded significant correlations and then only with technical writing skills ($r = .30$ for descriptive essay; $r = .23$ for comparative essay). This suggests that children whose parents actively encourage them and are involved with their learning a second language have better English technical written skills. These significant values emerged in spite of low variability in parental scores. This finding is consistent with those of other studies (Gardner, 1976, 1985; Colletta et al., 1983) suggesting children are likely to achieve better in second language acquisition when parents are involved in their learning.
On the other hand, the finding that children's writing skills measured in terms of linguistic productivity and holistic skills were not related to parents' influences, either in active or in passive roles is unique. No other study has found to show these results. One possible explanation for the current findings was that, even though children's technical skills was more likely to be influenced by parents' active role, linguistic and holistic skills were independent of parents' influence.

Relationships between active and passive parental influence and students' attitudes and motivation would mean that students who had positive attitudes towards learning English and toward the target language group and whose parents were involved with their language study would be more likely to be motivated. The results of this study, however, provided a picture in which parents had only a slight an influence on children's attitudes and motivations and but some influence on their technical English writing skills consisting of grammar, spelling and punctuation.

When considering the wider implications of these findings it must be noted that children in this age (8-12 years) are likely to be influenced by parents' attitudes in most areas. Hence, findings of relationships between parents' roles and children's attitudes and motivation would not be unexpected in a wider social context, let alone in this specific situation. The homogeneous nature of the sample of parents in this study may be one plausible explanation for the relatively few significant relationships.
7.7 The effect of other factors on students' attitudes and motivation

As mentioned previously in Chapter 6, it was necessary in this study to control the effects of other variables potentially able to affect the dependent variables. Students' length of residence and intelligence were considered as potential control variables.

With respect to length of residence (LOR), it is reasonable to suggest that, second language learners with more years of living in a host country may have more positive attitudes and motivation to learning the new language. However, there is not clear evidence in the literature about relationships between the time spent in a target language community and favourable attitudes towards that language group.

In the present study, a significant correlation was not obtained between LOR and the six scales for attitudes and motivation. Thus, since students' length of residence was not a good predictor of students' attitudes and motivation, it was not used as a control variable.

Van der Keilen (1995) pointed out that long term involvement in an intensive second language program enhanced the children's valorisation of the target language group. Stennett and Earl (1982, cited in Gardner, 1985) demonstrated that in a Canadian sample, students' attitudes changed throughout an entire immersion system. This program was most successful in some parts of Canada where French as a second language has high prestige among people and is valued by government. It is not clear what the reasons
are for the attitude changes. It could be the increased instructional time, or the varied activities that children were engaged in within the target language context.

With respect to relationship between intelligence and students' attitudes and motivation, Pearson Correlation indicated no correlation between these two sets of variables and hence intelligence was not used as a control variable.

7.8 Summary and conclusions

The role of attitudes and motivation on learning a second language are important because they reflect socio-cultural stimuli and serve to affect learning orientations in the process of acquiring the language. While research has demonstrated that second language acquisition is affected by learners' attitudes and motivation, there is as yet no evidence of relationships between these two factors and English writing outcomes, particularly with primary school students studying in an Australian context with a different background and culture.

The present research examined the relationships between second language writing variables and attitude/motivational factors using Gardner's (1979, 1985) theory of the second language learning process, as well as the hypothesised role of parents' attitudes on children's second language writing skills.
With respect to the hypothesised model (see 1.5 in Chapter 1), the relationships between the attitudes/motivational factors and English writing skills, did not emerge as was expected. Previous research evidence suggested a supporting role for attitudes and motivation in second language learning. The present study found a low relationship between students' writing skills and attitudes/motivational variables. That is, there were weak positive relationships between linguistic productivity with some attitude variables, and the holistic variable had a slightly positive correlation (but not high) with attitudes/motivation factors (attitudes towards Australian, and with attitudes towards learning English). These quite low relationships between students' attitudes/motivation and their English outcomes did not give strong support to the hypothesis of the present study.

Questions relating to the role of integrative and instrumental orientations on second language writing skills are important. While the research studies showed (Gardner & Lambert, 1972; Gardner, 1985) that among ethnic minority groups in North America, both instrumental and integrative orientations facilitated achievement in the target language, the finding of the present study showed no relationships between integrative and instrumental orientations and English writing factors.

The mean response of integrative and instrumental orientations was relatively high (mean of 4.4 on a 5-point scale), so the lack of relationships between these two variables and English writing criteria could stem from the homogenous nature of the sample. The results do suggest that Iranian
primary school students, while reporting high integrative and instrumental orientations for English writing, evidenced less strong, but still meaningful orientations for studying English.

The hypothesised relationship between students' attitudes and motivation, and the influence of parents' role was supported only in one factor for children's attitudes. The result in this case indicated a relationship between passive parental role and children's attitudes towards Australian people. Parents' attitudes, however, were not seen to significantly affect children's attitudes and motivation. While the students' level of attitudes/motivation was high and relatively homogenous, parents' levels of attitudes was also high. This result differed from earlier research findings that students' attitudes and motivation variables generally correspond with parents' active and passive roles. However, the homogeneous nature of the sample may be an explanation.

The findings of present research supports the hypothesis that parental influence (specifically an active parental role) is important in second language writing achievement in terms of technical skills. However, this was the only significant relationship between parental influence and student English writing variables.

Cautiously interpreted, this suggests that students whose parents are involved with their language study are more likely to perform better in English writing technical skills.
Chapter 8

SUMMARY, CONCLUSIONS AND IMPLICATION

8.1 Introduction

Previous chapters detailed data analyses and the results obtained, and also discussed the major findings resulting from the applied statistics. This chapter will summarise what has been learned from this investigation about the effects of first language literacy skills on second language proficiency of Iranian primary school children in Sydney. In addition, it will delineate an interpretation of the major findings in light of "Interdependence hypothesis" and the Hypothesis Model described in Chapter One, which included students' second language writing skills, their attitudes and motivation,
parental influence, length of residence in Australia, and students' general intelligence.

This study attempted to integrate a number of factors that arise in reference to second language learning. The major purpose of this thesis was an attempt to identify relations described in the Hypothesis Model particularly, the role of first language writing skills in second language writing performance. Consistent with the Interdependence Hypothesis, the findings from the present study suggest that writing skills in English (L2), in a bilingual milieu (Australia), among Iranian primary school children who were instructed in their first language and at the same time attended regular Australian schools, appear to be related to Farsi (L1) writing skills.

The second purpose of this study was to examine the role of attitudes and motivation in learning a second language, as well as the influence of parents on acquisition of a second language, as identified in the Hypothesis Model. Based on the present results, it would appear that although children's attitudes towards learning English and the Australian context were high and positive, there were no relationships between attitudes/motivational factors and second language writing skills. Questions relating to the influence of parents' attitudes on children's motivation and their achievement in English writing were also addressed. In addition, the Hypothesis Model framing this investigation contained two extra variables—length of residence and general intelligence—as control variables.
8.2 Interdependence Hypothesis

Results described and discussed in Chapter 6 and 7 are consistent with Cummins' Interdependence Hypothesis - that second language writing development relies strongly on first language proficiency in this specific population of bilingual school children. The special significance of this finding relates to the fact that Farsi and English are so different in structure and writing systems.

The Interdependence Hypothesis (Cummins, 1979, 1984, 1987, 1991) states that bilinguals are able to transfer skills from their first language for use in their second language. For bilingual children it would be easier to learn concepts in a language they already understood. Once children can learn in one language, much of this ability transfers to the second language. According to this view, devoting time to developing literacy and background knowledge in the first language can help make a subsequent contribution to literacy development in the second language. Investigations of role of first language literacy on second language proficiency have demonstrated the strong developmental interrelationship between the bilingual child's two languages. That is, the conceptual information and discourse strategies acquired in the first language seem to be transferable to the second; little was known though about two languages that have dissimilar writing systems, like Persian and
English. It was reasonable to assume, however, that language writing features could affect the nature of transfer of writing skills.

The main purpose of this study was to determine whether the development of academic writing skills in a first language facilitates performance in a second language that does not have the same writing features, grammar, graphic conventions or even the same type of writing system. Specifically, children's English writing was compared with their Farsi writing using three main indicators (linguistic productivity, holistic schemes, and technical skills) to measure writing skills.

The findings suggest that students transferred linguistic and holistic skills to their second language, thus supporting the hypothesis that some Farsi language literacy skills are strong contributors to English writing competence. There was no similar relationship between technical skills in Farsi and English.

Specifically, students who had high levels of performance in linguistic productivity such as number of words and complex sentences in Farsi tended to perform well in the same measures in English. Students' performance in holistic schemes in Farsi showed this variable was a significant predictor of their holistic skills in English writing. In other words, students who wrote well structured and organised essay in their first language seemed able to write a well structured and organised essay in their second language. In contrast, there were no apparent reasons that technical skills such as spelling, grammatical correctness, and punctuation in students' first language writing
should have related to development of second language writing, as they are quite different in both languages.

Thus, the finding that elements of a child's proficiency in L1 and L2 are common or interdependent is consistent with the view that second language writing proficiency is related to first language writing skills; the view also supported by Edelsky (1982, 1986), Edelsky and Jilber (1985), Lanauze and Snow (1989), Carlisle (1986), and Cummins et al. (1984).

Despite no indication of a relationship between technical writing skills from L1 to L2, there was a positive correlation between children's technical skills and length of residence in Australia. This suggests that a longer exposure to the language itself and the impact of schooling is important in developing technical skills.

The difference between children's performance in the descriptive and comparative written tasks by language, points to the possibility that planning in a second language requires more mental capacity than does planning in a first language. That is, children's performance on the easier descriptive task was better in English than in the more difficult comparative task. When children's were confronted with the more difficult comparative task they performed better in Farsi than English. Overall though, the quality of planning transfers from L1 to L2.

Clearly, the study establishes the importance and relative contribution of knowledge and literacy in the first language even given the great difference
between Farsi and English writing systems. That the students were from (a) middle-higher social class backgrounds, (b) belonged to an achievement-oriented culture, and (c) intend to return to Iran, were also factors that could be expected to enhance the development and maintenance of Farsi proficiency, which in turn was expected to contribute to English language skills.

8.3 Students' attitudes and motivation factors

The present research examined the relationships between second language writing variables and attitude/motivational factors using Gardner's (1979, 1985) theory of second language learning processes, as well as the role of parents' attitudes on children's second language writing skills.

With respect to the hypothesised model described in Chapter One, the relationships between the attitudes/motivational factors and English writing skills, differ in some respects from what was expected. As suggested by past research, the supporting role that attitudes and motivation play in second language learning was demonstrated. However, there was no significant relationship between students' attitudes/motivational factors and English writing tasks. Although the students' motivation to learn English was relatively high, the lack of correlation between students' English writing skills and their motivation indicates that English writing proficiency was more strongly related to factors other than children's attitudes and motivation.
Certainly these findings support some aspects of arguments advanced by educators about the important role of the attitudes and motivation in learning second language. For example, students' attitudes towards Australian society and their motivation to learn English in this context were very positive. This might be attributed to the process by which they came to Australia and became involved in Australian schooling. Students' attitudes towards learning English was relatively homogeneous (score mean = 4.5 from 5, S.D. = 0.66); equally, their attitudes towards Australians were also positive and relatively high (score mean = 3.6 from 5, S.D. = 1.07). Thus, it is possible that educational experience of the Iranian primary students might lead to a more sophisticated understanding of social and cultural aspects of Australian life even though there appears to be no specific benefit for performance in academic writing skills.

As stated previously, owing to the small sample size, further investigation of relationships between students' attitudes/motivation and their achievement in second language writing skills is required to see if the conclusions drawn here are tenable. As well, the effects of students' attitudes and motivation on their second language acquisition needs further examination, particularly with respect to the manner in which that influence is felt. It would be especially beneficial to investigate the constructs with children from other cultural/linguistic groups also resident in Australia.

As discussed in Chapter 3, a second language learner's purpose for learning a second language can be divided into integrative and instrumental motivation. While integrative motivation concerns people who learn a
second language in order to become like a member of the target language group, instrumental motivation refers to people who learn the language for practical reasons such as getting a job or passing an examination. In this study, the differences between instrumental and integrative motivation in second language acquisition was not clear. In other words, while the mean responses of these two items were high, there were no relationships between them and children's writing achievement. In fact, it appears that these children have internalised the diversity of cultural facets of the two language groups. Realistically though, given that these children must return to Iran while they may be able to appreciate the culture of the host country, they can not belong integrally to the host community.

The findings from students' responses to open ended questions about English usage suggested that they used English frequently with their English friends, Iranian friends, and even with their siblings at home, and of course were exposed to English through TV. Findings also suggested that as the subjects were surrounded mostly by English speaking people, they sought to learn English to interact with this new group; thus findings of an integrative orientation were not unexpected. On the other hand, students knew the benefit of English proficiency in Iran; therefore, they had more than one orientation for learning the new language. Thus their responses indicated aspects of both orientations-integrative and instrumental orientations for English language study. It seems, then, that socio-psychological theories of second language acquisition which predict differential attitudes and motivation for second language study in different socio-cultural setting have
been supported at least tentatively once again, this time with Iranian students in an Australian context.

Whether the Iranian primary school students' views are the result of their experience, the influence of their parents, or their experience in the wider community cannot be determined directly from present study. Probably their views reflect the interaction of all three influences.

8.4 Parental influence

With respect to the Hypothesis Model described in Chapter One, it was assumed that parents have an influence on children's attitudes and motivation toward learning English. In this study, results from analyses of parental roles indicated that only the passive parental role corresponded with children's attitudes toward Australian society, thus suggesting that the more potent role of the parent was the passive one. In this study, though, parents' attitudes, were not seen to significantly affect children's attitudes and motivation. This result differed from earlier research findings suggesting that students' attitudes and motivations generally corresponded with parents' active and passive roles.

The present research gave limited support to the hypothesis that parental influence is important in second language writing skills, and further, that this
influence can be thought of in terms of active and passive roles as suggested by Gardner (1979, 1984). The one significant relationship between the active parental influence variable and students' English writing technical skills could mean that students who were proficient in technical skills were more likely to have parents who were involved directly with their English writing skills. Possibly, parents who are more actively involved in their child's English study may emphasise English writing technical skills more than other aspects of writing skills such as linguistic and holistic abilities. Cautiously interpreted, this suggests that students whose parents are involved with their language study are more likely to perform better in English technical skills.

The characteristics of the children's home backgrounds indicate that it might not be unreasonable to expect parents to play a supportive role in their children's English language acquisition.

8.5 Intelligence and length of residence

Although there was a positive correlation between students' general intelligence and their English writing technical skills, this study suggests that intelligence does not play a significant role in children's English writing skills as a whole. That is, acquiring linguistic and holistic skills in second language writing would appear, in this situation with these subjects, to be unrelated to IQ.
Basically the same conclusion has been reached about the relationships between length of residence and second language writing skills. However, with respect to English technical skills, the power of the length of residence variable can be interpreted as reflecting both exposure to the language itself and the impact of schooling.

8.6 Suggestions for the Further Research

A number of questions emerging from this study have led to propose the following specific directions for further research. A key result from the current study is that first language literacy proficiency seems to foster second language proficiency in the writing domain. It was clear from the present study that writing performance in terms of linguistic and holistic skills in English (L2) were affected by Farsi (L1) writing skills in spite of different writing system between the two languages. Yet, there was no clear delineation of other criteria within the writing area that may have accounted for these effects.

Thus, the question of whether the students' second language writing performance was affected by their attitudes and motivation is an important issues in second language learning. A major source of difficulty seems arise from inadequate instrumentation to measure children's attitudes and motivation towards learning a second language and also towards the target host language community.
Further study is also required to discover to what extent these findings can be generalised to other bilingual school children populations with varying language and cultural backgrounds, both in Australia and elsewhere.

Another key area of investigation is the role played by special English language classroom for newly arrived children and by regular schooling in developing L2 literacy skills.

Needless to say, this study has explored only one aspect of second language learning. The phenomenon of acquiring a second language is a lot more complex than has been discussed here and it involves a great variety of individual and contextual factors as well as indirect relationships between the different elements and second language acquisition. The inclusion of other measures and the study of different stages of second language acquisition in future research could provide interesting data about process of learning second language particularly, second language writing skills.

8.7 Implications for education

Conclusions may be drawn regarding wider implications of this study for the education of non-English dominant students in Australia and elsewhere.
A number of pedagogical implications have surfaced from this study of the relationship between first language literacy and second language writing skills. First, educators need to be aware of the many factors that influence L2 development including the first language literacy levels of students, their attitudes and motivation in learning a second language, and parental influence on students' attitudes to learning and education. Given evidence of the transfer of linguistic and holistic skills across languages, instructors should consider much more seriously the development of L2 writing skills as an extension of students' first language literacy skills.

A practical implication of these findings and those of Cummins (1979, 1984, 1991) is that opportunities for developing skills in a first language can be expected to improve performance in academic tasks in a second language. This suggests that one determinant of how acquisition of the second language relevant L1 skills become available in the degree of mastery in the first language. Decisions about when and how L2 should be introduced in the education of language minority children can not responsibly be made without an analysis of the children’s L1 strengths and weaknesses.

In addition, a broader implication of this study lies in curriculum development. In viewing L2 literacy development as an extension of L1 literacy, ideally, the L1 and L2 educator should come together to coordinate programs in this area. While the findings from this study suggest that the act of writing in a second language is a continuum from first language literacy to second language proficiency, the specific influences of instructional contexts were not explored.
In situations like Australia, minority children from different language background sometimes attend bilingual programs such as Saturday School to maintain their first language or to learn the language of their family's home community. These kinds of programs are mostly managed or controlled by the minority language communities they serve but with government funding. Ideally, and where relevant, it would be beneficial for teachers in both programs to liaise on issues in order to facilitate children's English academic learning in the regular school.

In Australia, all minority language children learn English sooner or later. In the case of my children, when my five year old son started his kindergarten in Australia, in spite of using Farsi at home, his private speech started with English and he quickly began to move to use English vocabulary and phrases than Farsi in everyday communication. In the case of my elder son, English was similarly mastered after a short time in the Australian school system. Further, he also learned a new third language (Arabic) and was successful in obtaining a high score in the HSC examination. However, if children are to become true bilinguals they must develop their knowledge of their first language as they acquire English.

The findings from this study are not immediately generalizable to other settings and circumstances. For example, in Iran, there are ethnic language groups who speak and use their own language supported by local radio and television, but there is limited use of languages such as Turkish and Kurdish in formal written communication or in formal schooling. Farsi is the only
language used at instructional levels and at the formal situation. There would be no opportunity for children's home language to be drawn upon in formal schooling. There may, however, be some pedagogical implications of the current study in terms of learning English and Arabic which are taught as a foreign language at school in Iran. School children who are proficient in their formal language (Farsi) may well be advantaged in learning English and Arabic in Iran. However, the pedagogical implications of this study are, most appropriately, confined to settings in which learning a new language occurs in the context of the target cultural and linguistic community.

8.8 Limitations of the study

This study was conducted in the real world classroom setting, not in a laboratory situation and there were, therefore, problems in controlling variables. Some administrative factors limited my ability to control the students' background. While I knew how long the students had lived in Australia, I was not able to separate students according to attending an ESL program or attending Iranian school prior to coming to Australia. Background and preparation of students' teachers in regular school, different school curricula and teaching methods were additional factors which might also have affected students' performance.

Another limitation is associated with the methodology employed, both from the evaluation of children's writing and the students' attitudes and
motivation. Firstly, inter rater reliability on the evaluation and judgement of children's writing while satisfactory, did have some limitations. For example, as Anderson and Pearson (1984) noted, the rater's purposes, interests, and prior knowledge may have influenced the way in which she interacted with text, and hence, would influence the judgements she made about writing.

Secondly, as the questionnaires used to measure attitudes were adapted for use in this study (from Gardner & Smyth, 1981; Gardner, 1985) it may be that they were not truly appropriate for these subjects in this context,

Another concern was the Iranian children's attitudes to and effort expended in completing the writing tasks. To what extent were they really committed to performing at their best level given the nature and purpose of the tasks and that they were attending school on a weekend?

Finally, a limitation also associated with the study is that it explored only one group of Iranian students who were short-term Australian residents. This small group may not represent the wider Iranian community who are living in Australia permanently.
8.9 Final words

The results of this thesis suggest that concept knowledge obtained in one language can promote second language performance. Thus, it strongly supports the interdependence hypothesis showing that Farsi language competence, despite its different writing system, is a strong factor accounting for English language proficiency among this population. The findings seem to support Cummins' assertion about the need for maintaining academic skills in the first language in order for second language skills to evidence positive development. However, in order to test this more rigorously, comparisons could also need to be made with Iranian children who had not had the opportunity to attend Farsi language classes, concurrently with their English schooling.

Not unexpectedly, the findings also showed that longer residence in Australia seemed to facilitate better technical writing skills in English, reflecting both exposure to the language itself and the impact of schooling in Australia.

Finally, the characteristics of the children's home background point to the cultural importance of education, and thus to parents' important role in children's attitudes and motivation in learning English in Australian context. What seems clear, is the importance of literacy in the home language, and the vital role of first language instruction in providing support for second language proficiency.
REFERENCES


Appendix A

Student Questionnaire

Name..........................................
Code number................................
Class...........................................
Birth of date..................................

Instructions:

You are being asked to complete this questionnaire as part of a research project to investigate the effects of attitudes on learning a second language. For the results of this study, it is important that you be as accurate as possible in your answers. All information that you provide us will be kept strictly confidential and neither your teachers nor parents have access to it.

If you have any questions while you are filling out this questionnaire, do not hesitate to ask for assistance by raising your hand.

I will read and explain each question in Farsi, we will work through the questions together.
PART I: General Information

1. Please indicate all languages that are spoken in your home.

2. Please indicate which languages you speak well.

3. During the last 12 months have you had the opportunity to use English outside of the school situation?
   Yes ......................... No.........................
   If yes, in what ways and where..............................................................

4. How many years have you been in Australia?

..............................................................
PART II

Instructions
Please answer the following items based on what you feel your abilities are in English. Please indicate your answers to each statement by putting a check mark (√) in the appropriate space.

1. I write English:
   - a little
   - well
   - fluently

2. I understand English:
   - a little
   - well
   - fluently

3. I read English:
   - a little
   - well
   - fluently

4. I speak English:
   - a little
   - well
   - fluently

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PART III

Instructions

Following are a number of statements with which some people agree and others disagree. There are no right or wrong answers since many people have different opinions. We would like you to indicate your opinion about each statement by circling the alternative which best indicates the extent to which you agree or disagree with that statement.

For each of the items on the following pages, give your immediate reactions. Don't waste time thinking about each statement. Give your immediate feeling after reading each statement. It is important that we obtain your true feeling. All of your answers will be kept secret.

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<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Studying English can be important to me because it will allow me to be more at ease with Australians who speak English.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. When I leave here, I will give up the study of English entirely because I am not interested in it.</td>
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<tr>
<td>3. My parents feel that because we live in Australia, I should learn English.</td>
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<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>disagree</th>
<th>agree</th>
<th>strongly agree</th>
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<tbody>
<tr>
<td>4. The more I learn about Australians, the more I like them.</td>
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<td></td>
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<tr>
<td>5. Studying English can be important for me because it will allow me to meet and converse with people from different background.</td>
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<tr>
<td>6. Learning English is really great.</td>
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<td>7. Studying English can be important for me because it will enable me to better understand and appreciate Australian art and literature.</td>
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<td>8. My parents show considerable interest in anything to do with my English study.</td>
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<td>9. Studying English can be important for me because I will be able to participate more freely in the activities with Australian people.</td>
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<td>10. My parents think I should devote more time to my English studies.</td>
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<td>strongly disagree</td>
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<tr>
<td>11. Studying English can be important for me because I think it will someday be useful in getting a good job.</td>
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<tr>
<td>12. I love learning English.</td>
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<tr>
<td>13. My parents urge me to seek help from my teacher if I am having problems with my English.</td>
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<tr>
<td>14. I have a favourable attitude towards Australian people.</td>
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<td>15. Studying English can be important for me because other people will respect me if I have knowledge of a foreign language.</td>
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<tr>
<td>16. Learning English is a waste of time.</td>
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<td>17. Australian people are kind and generous people.</td>
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<tr>
<td>18. Studying English can be important for me only because I’ll need it for my future career.</td>
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<td>19. My parents feel that I should continue studying English all through school.</td>
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<td>20. Studying English can be important for me because it will make me a more knowledgeable person.</td>
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<td></td>
<td>strongly disagree</td>
<td>disagree</td>
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<td>strongly agree</td>
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<tr>
<td>21.</td>
<td>Australian people are friendly and hospitable.</td>
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<tr>
<td>22.</td>
<td>My parents try to help me with my English.</td>
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<tr>
<td>23.</td>
<td>I plan to learn as much English as possible.</td>
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<tr>
<td>24.</td>
<td>My parents have stressed the importance English will have for me when I leave Australia.</td>
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<tr>
<td>25.</td>
<td>I would like to get to know Australian people better.</td>
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<tr>
<td>26.</td>
<td>I think that learning English is dull.</td>
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<tr>
<td>27.</td>
<td>My parents encourage me to practise my English as much as possible.</td>
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</tr>
</tbody>
</table>
1. When I have a problem understanding something we are learning in English, I:
   a) immediately ask the teacher for help.
   b) only seek help just before the exam
   c) just forget about it.

2. When it comes to English homework, I:
   a) put some effort into it, but not as much as could.
   b) work very carefully, making sure I understand everything.
   c) just skim over it.

3. If my teacher wanted someone to do an extra English assignment, I would:
   a) definitely not volunteer
   b) definitely volunteer
   c) only do it if the teacher asked me directly.

4. When I hear a English song on the radio, I:
   a) listen to the music, paying attention only the easy words.
   b) listen carefully and try to understand all the words.
   c) change the station

5. How much do you watch TV each day?
   a) 1/2 hour
   b) 1 hour
   c) 2-3 hours
   d) 4-5 hours
Appendix B

Parents questionnaire

Instructions

Following are a number of statements with which some people agree and others disagree. There are no right or wrong answers since many people have different opinions. We would like you to indicate your opinion about each statement by ticking the alternative which best indicates the extent to which you agree or disagree with that statement. For each of the items on the following pages, we want you to give your immediate reactions. Don't waste time thinking about each statement. Give your immediate feeling after reading each statement. I would like to remind you that the information you provide is not associated with your name and is therefore secret. It is important that we obtain your true feeling.

<table>
<thead>
<tr>
<th>Statement</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Studying English can be important because it would allow my child to meet and converse with people from different background.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. Studying English can be important because I think it would someday be useful for my child in getting a good job.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. I show considerable interest in anything to do with my child's English activities.</td>
<td></td>
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<td></td>
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<tr>
<td>4. I try to help my child with her/his English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
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</tr>
<tr>
<td>5.</td>
<td>Studying English can be important because I think it would make my child more knowledgeable person.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Australian people are kind and generous people.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Studying English can be important because my child would be able to participate more freely in the activities of other cultural groups.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I would like to get to know Australian people better.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I feel that my child should devote more time to her/his English studies.</td>
<td></td>
<td></td>
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<tr>
<td>10.</td>
<td>Studying English can be important because other people would respect my child more if she/he has a knowledge of a foreign language.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>11.</td>
<td>The more I learn about Australians, the more I like them.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>I urge my child to seek help from the teacher if she/he is having problems with English.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
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<tr>
<td>13.</td>
<td>Studying English can be important primarily because my child would need for a future career.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>14.</td>
<td>Studying English can be important because it would enable my child to better understand and appreciate Australian art and literature.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>15.</td>
<td>Australian people are friendly and hospitable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>I really encourage my child to study English.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>17.</td>
<td>Studying English can be important for my child because it will allow him/her to be more at ease with fellow Australian who speak English.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>I have a favourable attitude towards Australian people.</td>
<td></td>
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</tbody>
</table>
19. I have spoken to my child's English teacher about her/his progress:
   (a) never.
   (b) a few times.
   (c) often.

20. I sit and watch English television programs with my child:
   (a) never.
   (b) once in while.
   (c) often.

21. I ask my child for Persian translations of English words:
   (a) never.
   (b) rarely.
   (c) often.

22. Of the books and magazines I buy for my family:
   (a) none of them are English.
   (b) a few of them are English.
   (c) many of them are English.

23. I ask my child about her/his English studies.
   (a) never.
   (b) sometimes.
   (c) often.
General Information

Please circle the letter next to the correct statement:

1) What is your gender?
   a) Male
   b) Female

2) What is your age?
   a) less than 20 years
   b) 20-30 years
   c) 31-40 years
   d) more than 40 years

3) What is the highest level of education you have completed?
   a) primary school
   b) secondary school
   c) university
   d) other (please specify) ............................................................

4) Which language do you speak most at home?
   a) English
   b) Farsi
   c) other (please specify) ............................................................

5) How is your spoken English?
   a) fluent
   b) good
   c) fair
   d) poor

6) How long you have been in Australia?
   a) 4 years or more
   b) 2-3 years
   c) less than 2 years
Appendix C

LETTER TO PARENT

Marzieh Arefi
Faculty of Education
University of Western Sydney Nepean.
P. O. Box 10
Kingswood, NSW 2747

Dear Parent,
I would be pleased if you are able to provide me with the following information by filling out the enclosed questionnaire which is related to one part of my research project into the effects of attitudes/motivation factors on learning a second language. Because parental views are very important in the context of learning a second language, I need to know how you feel about a number of things that may be related to your children's achievement in English language acquisition.

I would like to emphasise that any information you provide will be kept strictly confidential and no individual person will be identified in any report. To assure you, I have developed a coding system whereby each child’s responses will be given code numbers. The code will be kept by the researcher at this university, and all data obtained will be destroyed after finishing the research project.

Despite your busy schedule, your participation in this research project is greatly appreciated.

With best regard
Marzieh Arefi
8/4/95
PARENT CONSENT FORM

I, ........................................., Parent/guardian of ........ agree that my child can participate in a study investigating the role of first language on second language proficiency by a researcher from Faculty of Education at the University of Western Sydney Nepean. This will involve:

1. Completely an attitude to learning English questionnaire.
2. Writing short essay in English and Farsi.
3. Completely a test of general ability using Raven's Matrices.

I understand that participation in the study is entirely voluntary and that I can withdraw the "consent to participate" at any time and have information concerning my child destroyed.

Signed........................................ Date........................................
Appendix D

HOLISTIC SCHEMES (Structural Features)

Rater: code number...........

(Descriptive essay)

<table>
<thead>
<tr>
<th></th>
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<th>fair</th>
<th>good</th>
<th>very good</th>
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Rater: code number...........

(Comparative essay)

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### TECHNICAL SKILLS

**Rater:** code number......

(Descriptive essay)

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**Rater:** code number......

(Comparative essay)

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</table>
Linguistic Productivity

(student No...........)

(Descriptive)
number of words..............................................
number of simple sentences..............................
number of complex sentences............................
number of total sentences...............................
number of T-unit............................................
words/T-units............................................... 

(Comparison)
number of words..............................................
number of simple sentences..............................
number of complex sentences............................
number of total sentences............................... 
number of T-unit............................................
words/T-units...............................................
THE RELATIONSHIP BETWEEN FIRST AND SECOND LANGUAGE WRITING SKILLS FOR IRANIAN STUDENTS IN SYDNEY: AN APPLICATION OF THE INTERDEPENDENCE HYPOTHESIS

by

Marzieh Arefi

Submitted in fulfilment of the requirements for the degree of Doctor of Philosophy
Faculty of Education
University of Western Sydney, Nepean
March 1997
DECLARATION

I certify that the substance of this thesis has not already been submitted for any degree and is not being submitted for any degree.

I certify that any help received in preparing this thesis, and all sources used, have been acknowledged.

Signed

..............................................
MARZIEH AREFI
To Him who makes all things possible
ACKNOWLEDGEMENTS

I wish to thank all those who have helped and supported me in the completion of this thesis.

I am grateful to the administration, students, and their parents in Vahdat Iranian Weekend school in Sydney for their participation in this research.

My thanks are also attend to Dr. Javad Farhodi from Uromieh University in Iran who encouraged me to take the opportunity to come to Australia to complete my higher education. I also wish to thank for the Ministry of Higher Education in Iran for the financial support in the form of a four years scholarship.

The completion of this thesis is largely due to the support and encouragement of my supervisors: Associate Professor Alison Elliott and Professor Neil Baumgart. To Dr. Elliott, I am immensely grateful for her sense of academic excellence, encouragement, and helpful suggestions in my thesis. To Professor Baumgart, I am similarly in debt for his expert guidance and helpful comments on matters relating to the statistical analysis, reporting of results, and in the preparation of this thesis. I am grateful to both for the time they spent reading each chapter and discussing and clarifying the ideas. I can truly say that, without their help and encouragement, this thesis might never have been completed.
I would like to thank the academic and general staff of Faculty of Education UWS, Nepean for the help they have given me since I started my study here. I would especially like to mention Ms Sandra Fullagar for providing administrative support and Andrew Martin for statistical advice during the data analysis. I also extend my special thanks to Margaret McIntosh and Sue Oram who provided invaluable library support during my study.

Above all, I am indebted to my family. There are no words that can adequately express my gratitude to my husband, Iraj. Without his encouragement, support, and understanding I would never have completed this thesis. I am also grateful to my children: Milad, Elnaz, Misagh, and Erfan who have always been my inspiration.
ABSTRACT

The theoretical perspectives arising from the interdependence hypothesis suggest that proficiency in a first language might promote development of proficiency in a second language, particularly with respect to literacy related skills that involve concept knowledge normally acquired in school settings. According to this view, instruction or exposure in one language not only develops skills in that language, but also helps develop a deeper conceptual and linguistic proficiency that is strongly related to the development of the other language and to general academic skills. This theory is supported by research studies, and notably by studies dealing with two related languages within the European language family. There is little research, however, about ways in which this might apply to bilingual children who use two different languages, like Farsi and English. A major question: therefore is whether literacy skills from a first language could be transferred to a second language that does not share the same writing features, grammar, graphic conventions or even the same type of writing system.

The purpose of this study was to analyse the role of first language literacy in second language acquisition where languages are quite different. Specifically, it was designed to investigate the relationships between first language (Persian) writing skills and second language (English) writing performance. That is, it investigated the extent to which Iranian primary school children who were already literate in their first language drew upon literacy skills and concept knowledge of literacy from their first language to use in their second
language. Although the main focus of the research was on relationships between first and second language writing skills, the influence of attitudes and motivation variables on the acquisition of English writing proficiency was also studied. It was hypothesised that second language learning might be affected by both learners' and parents' attitudes and motivations. In the present study, the influence of children's general intelligence and length of residence on English writing skills were also investigated as control variables.

Subjects were 70 Iranian students in grades 3, 4, and 5 who attended NSW State primary schools plus Persian School on Saturday and Sunday. Literacy levels were assessed by asking students to write two essays in both Farsi and English. Three writing indicators (linguistic productivity, holistic schemes, and technical skills) were selected to assess students' writing skills in Farsi and English using two types of essays: descriptive and comparative. A questionnaire probing language attitudes and motivation was also completed.

Results of the study indicated that first language Farsi writing skills specifically linguistic and holistic skills were transferred to the English language. Thus, the interdependence hypothesis was supported even though Farsi and English have very different writing systems. Despite no apparent transfer of technical writing skills from L1 to L2, there was a positive correlation between children's technical skills and their length of residence in Australia. This suggests that a longer exposure to the language itself and the impact of schooling is important in developing technical skills.

With respect to relations between students' writing skills and their attitudes and motivation, results showed there was no correlation between students'
English writing skills and motivation suggesting that English writing proficiency was not related to children's attitudes and motivation to learning their new language. However, as students' attitudes toward learning English and the Australian context were positive and high, it is possible that the educational experiences of the Iranian primary students might lead to a more sophisticated understanding of the social and cultural aspects of Australian life, even though there appears to be no specific benefit for performance in academic writing skills.

Parents' influence on children's English writing skills was not found to be an important determinate in linguistic and holistic writing measures, although there was a relationship between the active parental influence variable and students' English writing technical skills. That is, parents who were more actively involved in their child's English study may emphasise English writing technical skills more than other aspects of writing skills such as linguistic and holistic abilities.
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