

# **PREDICTING GIFTED FOREIGN LANGUAGE LEARNING AND PERFORMANCE**

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This thesis is dedicated to  
the memory of my parents  
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whose interest in language and culture inspired  
my curiosity in foreign languages and places

# Predicting gifted foreign language learning performance

## Abstract

This thesis examines individual learner characteristics in order to identify those useful as predictors of gifted foreign language learning performance and creativity in secondary school pupil learners. An individual learner might possess a range of learner characteristics which combine to support his or her gifted foreign language performance.

Foreign language learning in England is examined in the opening chapter, providing an historical and educational context within which to explore individual learner differences and the notion of gifted foreign language performance.

Theories and research findings from the fields of linguistics are scrutinised together with those generated by foreign language education research in chapter two. Additionally, there is an explanation of giftedness and this latter discussion links to chapter three which relates specifically to gifted performance and creativity in foreign language learning. The Good Language Learner research conducted by Naiman, Frohlich, Stern and Todesco offers a template for studying multiple learner characteristics and the pioneering work of Vygotsky introduces a model for the teaching of the gifted. Chapter four presents the subsequent theoretical framework for this research and clearly differentiates between cognitive and affective individual learner characteristics.

Specific research questions focus on selected individual learner characteristics, which include: cognitive ability, foreign language aptitude, motivation and attitude in foreign language learning and these are discussed within chapter five. Quantitative methods are used to address the research questions and data is collected from a group of mixed ability secondary school pupils over a three year period. The research tools included standardised tests for ability, memory, and language aptitude and motivation. Creativity tasks and a questionnaire surveying pupil attitude to foreign language learning were designed for the research in this thesis. The quantitative data was processed statistically.

Significant results are highlighted and interpreted with reference to the original theoretical framework and this guides the discussion in chapters six and seven respectively. The closing chapter summarises the main research findings and offers a practical strategy for foreign language teaching including guidelines for the identification of gifted foreign language learners. This is juxtaposed with the current challenging circumstances facing schools, brought about by government educational policy which is seeking to improve pupil performance in foreign language learning and to change national attitudes and perceptions to foreign languages and cultures.



## Preface

In this preface I intend to illustrate how my personal experiences and professional expertise as a teacher have led to the development of my current research interest. I am a geographer and a secondary school teacher and I will now attempt to account for what prompted me to pursue an interest in modern foreign languages and engage in this research. Geography relies on non-verbal, spatial skills, used in mapwork and fieldwork predominantly, which allows the geographer to interpret scale, distance and direction and enables one to make sense of unfamiliar data and accommodate change in surroundings. I personally enjoy the opportunity of orientating and assimilating into an unfamiliar environment.

The study of other physical systems (landscapes and climates) and human features (settlements) in other parts of the world are familiar concepts to geographers and the impact these have on people and their way of life lies at the heart of the subject. There are opportunities in geography to study the culture and quality of life and to understand how human activity compares with life in England. Snow and Byram (1997) incorporate these within their framework for a broad ethnography programme for study visits abroad, which presents geographers and foreign language learners with the challenge of observing and describing different ways of life. How this knowledge is interpreted depends upon the value placed upon the other society and its culture. The interpretation of culture is subsumed within the affective domain, that is, within the personality, associated with emotional behaviour. Littlewood (1981) comments that in trying to speak a foreign language we are altering some aspect of our own identity:

*“When we try to adopt new speech patterns, we are to some extent giving up markers of our own identity in order to adopt those of another cultural group. In some respects, too, we are accepting another culture’s way of perceiving the world. If we are agreeable to this process, it can enrich us and liberate us”*  
(in Byram, 1981 p.55).

Language is a part of culture and although English is widely used in the world, a language learner in a geography lesson will recognise that there are unfamiliar words, such as place names on maps of other countries. A good teacher would be able to point out that these can tell us a great deal about the country if we are prepared to find out the meaning. Therefore, the geography of a place can impact upon the language. The British traveller Wilfred Thesiger (1964) illustrates this when he vividly described the deserts of southern Arabia, conjuring up an immensely bleak landscape:

*“The greater part of it is a wilderness of sand; it is a desert within a desert, so enormous and so desolate that even Arabs call it the Rub al Khali or the Empty Quarter”* (p.39)

Conversely, language can impact upon geographers. Part of the acclimatisation to new surroundings may involve cognition through observation, deciphering the written foreign language and decoding meaning from the spoken foreign language if the individual is motivated to that degree.

I am certain that my positive attitude to languages and cultures came from growing up on Merseyside, near the cosmopolitan port of Liverpool, and close to North Wales, which meant that other languages were accessible and from my parents, who spoke French and German. How languages arrive in locations is also a fascination, given that linguists have tried to account for the origins and migration of language. The

evidence presented by Gamkrelidze and Ivanov (1990) suggests that the location at which Indo-European languages arose is placed in the forests of Northern Europe or the steppes of Russia and that language was borrowed from Anatolia in Turkey and the Southern Caucasus in Georgia. A geographer can visualise and study these places and environments and would regard it as crucial to investigate the physical and human causes of changes in the social setting to ascertain if some physical or social event caused groups of people to relocate. The movement of population for socio-economic or political reasons forms a major part of study in geography and the connection with foreign language learning is in the concept of migration and its short and long term effects including the subsequent spread of language, culture and ideas. Cavalli-Sforza (1991) notes that: “ *The language that you learn depends on where you were born and with whom you were born- your family and social milieu*” (p.78). The diffusion of language across continents over thousands of years is often depicted cartographically, a technique familiar to geographers, to show major language families around the world.

As a language learner myself, making an effort to say something in another language on family holidays seemed the polite thing to do and later when accompanying pupils abroad on school trips colleagues commented favourably on my willingness to communicate beyond tourist talk by learning how to say something. I learned Latin and French at school, and acquired others, including Italian, German, Turkish and currently Greek as an adult. Learning languages within an adult class does also provide some first hand observations of individual learner variations. Class members are well motivated, interested in the culture and no doubt have ability in other aspects of their personal and professional life but some learners can not grasp how the

language works nor recall its less familiar sounds. Having had positive experiences as a language learner myself, I remain curious about the mechanics of learning a foreign language. Inter-personal skills, personality type, level of confidence and the possession of a good memory and an interest in countries and their cultures all appear to help establish the right climate for learning for me. These personal attributes may contribute towards a learner becoming a better linguist.

The rationale for embarking on this research does have a further educational basis. As a senior teacher in secondary education, I encounter variations in attitudes and motivation within and between individuals within the classroom. These are not fixed attributes and can be modified either by the individuals themselves or in response to the teaching received. The good teacher knows that able pupils do develop their own preferred learning style and subject knowledge and skill level will improve within an appropriately challenging and stimulating learning environment.

The question is why are some language learners more able in the first place? Do they possess a higher level of all round generic skills, which would indicate general ability or do linguists have a special distinct talent? What is the characteristic they possess that distinguishes their performance above another? If the first language for communication is retained without any undue difficulty, I initially thought that more time spent language learning with frequent practice and reinforcement would aid second language learning. Although not every school child will enjoy or have success in every lesson, learning language for the second time would, put simply, be “natural” applying skills already learned with an understanding of how language works based on experience from the first. However, variations in the rate and extent

or outcome of learning do challenge this. The research that I undertook for this thesis provides some answers to the questions I pose regarding the learner characteristics which support the learning of a foreign language.

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## **Chapter One: Context of thesis**

Language makes up a significant part of the total human experience. People live their daily lives with language, and the skills they learn as a result of communicating through speaking and listening will enable them to recognise that language is a system with rules, and that they can choose the most appropriate language to fit the circumstances. All languages possess different structures and patterns of meaning and may pay attention to contrasting aspects or characteristics of events. This gives the foreign language its unique quality, with its own particular blend of sounds, conventions and shared understandings, which the native speaker assimilates both culturally and linguistically. The foreign language learner has the challenge of learning new knowledge and a new mode of meaning in order to gain some insight into another person's reality and access to other social domains.

### **The rationale for foreign language learning**

The opportunity to use a foreign language in a natural, real life setting should therefore, appeal to anyone who enjoys interacting with other people. School children in England and Wales who have studied a foreign language would regard this as a logical outcome of their classroom based foreign language learning and a reflection of the value society allegedly attaches to it. If employers in the European Union expect their job applicants to be competent in two or more languages this should pose no problem for some older pupils, the school leavers of the future. Indeed, the Council of Europe (2002) states in Objective 3.3. 'Improving Foreign Language Learning' that:

*“Knowledge of languages is part of the basic skills that the Europe of the knowledge society requires; everyone should as a general rule, be able to speak two languages” (p.14).*

School pupils may have been studying a modern foreign language for five years as part of the compulsory secondary school curriculum and will be equipped with the requisite skills and attitudes for the workplace. Foreign language learning became statutory from the age of fourteen to sixteen in English and Welsh schools in 1992. The recent “Green Paper 14-19: extending opportunities, raising standards” (2002) appears to endorse the value of foreign language learning *“languages will be properly recognised and valued by society and competence will be recognised” (p.4)*. Cook (1991) comments about the value of learning languages:

*“ Knowing another language may mean: getting a job; a chance to get educated; the ability to take a fuller part in the life of one’s own country or the opportunity to emigrate to another; an expansion of one’s literary and cultural horizons; the expression of one’s political opinions or religious beliefs” ( p.1).*

Such broad benefits eloquently justify the need to maintain foreign language learning in the formal school curriculum. However, a recommendation in the Government Green Paper (2002) to reduce the compulsory element of the foreign language curriculum from eighty per cent to fifty percent for students aged fourteen years and over does appear to put this under threat. The debate about the relative importance of foreign language learning as a discipline in schools is set to continue as it is clearly not impervious to change, having had its roots established in medieval England. As Rowlinson (1994) comments:

*“It is society that determines the content of education, in the light of the dominant philosophy...Many, perhaps most, new approaches are rediscoveries of old methods neglected and left in the shade, now re-illuminated by the light of social need. Language teaching, like all other teaching, reflects the temper of the times” (p.7).*

Its place in the National Curriculum for England and Wales is a reflection of current conditions and attitudes, aiming to provide foreign language skills as resources for living. As a result, every secondary school pupil has the study of a foreign language as part of their curriculum, from between the ages of eleven and sixteen unless he or she finds language learning difficult or disrupts the learning of others. There have been fears expressed that the recommendations in the Green Paper (2002) may contribute to the decline of foreign language learning as a compulsory subject in schools according to the results reported by the Association for Language Learning following their recent survey. In the foreign language classroom it has been common practice for foreign language teachers to teach pupils with a wide range of ability and linguistic experience who will already have mastered their mother tongue. Johnson (2001) refers to foreign language learning as normal practice: *‘Learning a foreign language may nowadays be regarded as a normal, almost everyday activity’* (p.6). Some students may be learning a foreign language formally at school, which is their third or even fourth language. Mother tongue Punjabi and Urdu speakers learn to speak, read and write English in primary school and to read and recite Arabic at home. They may be offered French or German in secondary school as a part of their National Curriculum entitlement. It is not unusual for them to be using more than one language on a daily basis. At the same school there will be pupils embarking on foreign language learning for the first time at the age of eleven.



The skills an individual acquires as a result of foreign language learning could be regarded ultimately as a measure of potential employability. A gifted linguist, who is able to acquire specific foreign languages, might be in great demand in the business environment. Johnson (op.cit.) favours the viewpoint that the purpose of foreign language learning is actually more wide-ranging, and he commends the skill of foreign language learning for its role as facilitator of communication within and between nations in a multilingual and multicultural world. Johnson and also Grenfell (1996) suggest that individual foreign language learners develop their inter- personal skills as a result of contact with native speakers from other countries and other cultures. Grenfell affirms that the purpose and outcomes of foreign language learning are more profound than a level of competence for the world of work. Learning a foreign language provides opportunities for social and personal development. Of course, it is important for the learner to appreciate the form the foreign language takes, but it is equally important to be able to converse with native speakers and communicate meaningfully:

*“Language is not something that we access like a baggage of information, taking out the bits and pieces to suit our needs at a particular instant. It is rather the means by which we create sense; of our world and of ourselves.”*  
(p.58).

This analysis of foreign language learning is of a dynamic force enabling the learner to cultivate a greater understanding of themselves and the world. The expansion of an individual’s sense of self, their involvement in the development of their intra-personal skills can shape that individual more fully. The rationale for foreign language learning appears to be multiple: to enable learners to experience and participate in ‘speech

events' (Savile-Troike, 1989) in a range of social and vocational settings outside their own familiar linguistic and cultural backgrounds. The National Curriculum for Modern Foreign Languages justifies the importance of foreign language learning because it promotes cultural understanding, teaches how language can be applied and sharpens generic skills. *"The development of these skills, together with pupils' knowledge and understanding of the structure of language, lay the foundations for future study of other languages"* (Department for Education and Employment, Qualifications and Curriculum Authority, 1999). An indicator of successful foreign language teaching and learning could be that all pupils would attain an acceptable level of competence after five years of study in the secondary education system. There are however, some factors that have impacted on foreign language learning nationally, which to some degree have problematised foreign language learning for pupils in schools and these are now examined.

### **The global status of the English language**

The English language is a global language, spoken as a first, second or third foreign language all over the world. Crystal (1995) asserts:

*"Sometimes English is an official or joint official language of a state...sometimes it may be the sole or dominant language for historical reasons...but in all cases, the population is living in an environment in which the English language is routinely in evidence, publicly accessible in varying degrees, and part of the nation's recent or present identity"* (p.108).

This provides a spatial dimension to the phenomenon, by one visualising the pattern as the English language spreads around the globe impacting upon the places it has reached. According to Wardhaugh (1987):

*“English has been treated more as a commercial property to be sold to particular countries as a means of communication and development” (p.140).*

The English language is seen as a commodity in terms of world markets; initially only benefiting the native speakers who left England for economic and social gain. Crystal (1996) in his discussion of the progress of the English language refers to the colonisation of North America in the early seventeenth century and in Africa in the nineteenth century and the subsequent dominance of the United States as a political and economic force:

*“The present-day world status of English is primarily the result of two factors: the expansion of British colonial power, which peaked towards the end of the nineteenth century, and the emergence of the United States as the leading economic power of the twentieth century” (p.106)*

As a result of the dominance of these world powers, many governments and judicial systems in countries where the English language made contact, today now carry out their proceedings in English, for example in the Caribbean. Five of the top twelve transnational corporations are based in the United States of America and conduct business in English speaking countries, according to Crump (1998). *‘English is just as much big business as the export of manufactured goods’* adds Quirk (1969) in Bryson (1990, p.3). Music and entertainment are dependent on English and major literary works are often only accessible outside the country of origin after translation into English, according to Crystal, (1996) who also refers to the dominance of English on the Internet (1997). Brumfit (1995) points out how the English language dominates

international sport and the global tourist industry, nullifying an individual's perception of need and removing the motivation to learn other languages:

*“Just as English has become the language of international business, so it is the lingua franca of tourism, and it is often difficult for the British tourist to find opportunities to practise speaking languages other than English”(p. 200).*

The status of English as a world language no longer exclusively benefits the native speaker and the United Kingdom as an economically developed country. Cook (1996) in her discussion of Phillipson (1992) and ‘linguistic imperialism’ points out that the promotion of English studied as a foreign language for business purposes, has actually economically disadvantaged the United Kingdom. Foreign language learners do not learn the English language for the benefit of the English nation:

*“This use was so successful that it escaped the hands of its originators and allowed Periphery countries to do business with each other rather than with the UK itself!” (p.140).*

Research into the use of foreign languages for European business refers to geographical location as an important variable. English is preferred for formal written business communications and the most widespread skill is reading comprehension. However in less formal settings, German is used more widely, especially in countries bordering Germany (Hagen, 1993). Stern (1983) also notes this phenomenon in France. The proximity of a French region to its neighbours: Spain, Germany, Italy and Britain is reflected in the importance attached to learning each respective foreign language. This may partly explain why French is the most dominant foreign language in the foreign language classroom in England.

The English language is no longer the exclusive property of the English if there are six hundred and seventy million people with a native or native-like command of it (Crystal, 1997). This global dominance may have helped to sustain monolingual attitudes within a multilingual society in England. Raising the status of indigenous languages, including Welsh, by incorporating it into the National Curriculum in Modern Foreign Languages in England and Wales in 1992, might help to redress the balance and reaffirm the benefits of foreign language learning. Trade and travel barriers have relaxed and a mood of co-operation between Europe Union member states is encouraged. Pupils study European countries in National Curriculum Geography and the GCSE Geography and History courses provide European case studies. Citizenship, a dimension of the curriculum, has been introduced in September 2002, and is intended to encourage students to contribute fully to the life of the school and the community, to work well with others and understand and respect common humanity, diversity and differences, so broadening their viewpoints and cultural understanding. School children visit other European countries, write letters and send electronic mail to exchange pen friends, but they do continue to look to the United States for their cultural references. The Americanisation of the English language and youth culture may be widening the Channel and narrowing the Atlantic. Crystal (1997) considers the risks associated with global languages:

*“Perhaps a global language will cultivate an elite monolingual linguistic class, more complacent and dismissive in their attitudes towards other languages” (p.12).*

Relying on English may make people lazy, and the lack of motivation to learn other languages may be fostered by the presence of English.

Good foreign language learners do achieve, despite insular attitudes and the lack of authenticity in the foreign language classroom with the 'gale' of English buffeting them from one foreign language lesson to the next. Foreign language teaching and learning is probably one of the oldest components of the formal curriculum. Until the government Green Paper (2002) was published in February, it was expected that most pupils from the age of eleven would take the opportunity to learn at least one foreign language. There is no legitimacy in classing foreign language learning as an elitist subject. That is, teaching to the minority, depending on the socio-economic status of the parents, or the linguistic or general ability of the pupils and the cultural norms of the day. Tracing the historical development of foreign language learning and teaching to the present day, occurring alongside the rise in the status of the English language does add an additional dimension to foreign language learning for the gifted. A foreign language learner today has to respond to the intellectual demands of the task, and also to the psychological and social effects of Britain's linguistic heritage, a summary of which is presented in the following section.

### **An historical perspective of foreign language learning in Britain**

Gifted scholars in the Middle Ages learned Latin and Greek, as an indicator of literacy and thus their own status. English was the language mainly of uneducated people and French was used in Parliament and the courts until the mid - fourteenth century. The skills of reading and writing in French and English became more widespread for commercial and vocational reasons. Literacy still depended on social and economic status and Latin remained the international language of scholars and the gentry. There would have been no demand for Latin and Greek nor would rural

schools have attracted teachers capable of teaching non-vocational classical languages. Opportunities for foreign language learning were not available to all according to Rowlinson (1996):

*“In Britain the pre-eminence of (Latin) retained through the nineteenth century was related to the ethos of an education system geared to the development of logical thinking and teaching an elite of cultivated minds” (p.8).*

European languages became important when wealthy families completed their child's public school education with the Grand Tour, a period of foreign travel. Knowledge of foreign countries and their languages was useful for those who might make careers in government. Travel to foreign countries gave an impression of worldly wisdom:

*“How much a dunce that has been sent to roam*

*Excels a dunce that has been kept at home” (Cowper, 1731-1800).*

A natural setting for foreign language learning does not necessarily result in all foreign language learners becoming good linguists. Many children were denied the opportunity to learn a foreign language as the education system continued to retain its role as preparation for a defined status in life. Potential was neither identified nor provided for. By the end of the nineteenth century a gifted language learner would have had access to Latin and Greek, to French and to a lesser extent German, which had gained a place in the secondary school curriculum. Other European languages, including Italian, Russian and Spanish were overlooked as French began to take a hold. Phillips and Stencel (1983) note that:

*“Because of the dominance of French, these languages have been accorded the permanent status of so-called ‘minority languages’, inferior in importance and reserved largely for the scholarly elite” (p.6).*

The rationale for learning was educational and cultural. Foreign language learning for vocational benefit was not emphasised. The practical and commercial value of any foreign language was possibly quite small, since Britain traded within the English speaking Commonwealth or with its colonies that had imported the English language.

When foreign language learning became a part of every child's education after the 1944 Education Act, intellectual ability was the measure used to select a suitable foreign language. According to Phillips and Stencel (1983), a particular foreign language was judged as more appropriate for some learners depending on the perceived level of difficulty.

*“The fact that over the years German has been reserved largely for a scholarly elite and that in recent years it has been considered a suitable substitute for a ‘difficult’ language such as Latin, has inevitably had a detrimental effect on the image of the language” (p.13).*

This shift in attitudes towards foreign languages has resulted in tensions for the teaching profession. The curriculum has remained neither static nor conflict free. There is no longer a restriction on who learns a modern foreign language in secondary schools. However, some foreign languages appear to be judged as more useful for some learners. Ranking some European languages in order of their supposed commercial value or importance has not helped the status of foreign language learning if educational or cultural interest is weighted against potential vocational use.

The Graded Tests movement in the late 1970's was characterised by the setting of objectives for learners aged over sixteen in the receptive skills of listening and



reading and the productive skills of speaking and writing with a list of topics within which each competence was assessed. Jones (1994) states that:

*“Pupils had the possibility of achieving success according to their particular language strengths” which gave “even the weaker linguists a chance to prove that they were capable of communicating effectively at an elementary level in a limited but listed range of situations” (p.21).*

Yet Her Majesty’s Inspectors reported a decline in the status of foreign language learning in secondary schools in 1977 and recommended that diversification could promote and improve foreign language learning, as there was a need to *‘offer pupils a terminal objective that they can perceive for themselves.’* They added that it was a false assumption that all pupils shared the same needs. *‘It is abundantly clear, however, that such an assumption is not only false but has unfortunate, often distressing consequences for many of them’* (HMSO, 1977). Concerns regarding the examination systems for sixteen year olds and the issue of pupil motivation resulted in the amalgamation of the CSE (Certificate of Secondary Education) and the GCE (General Certificate of Education) to form a new GCSE (General Certificate of Secondary Education), which was considered better suited to the needs of all language learners of all abilities. The Education Reform Act in 1988 heralded changes in the curriculum for eleven to fourteen year olds with the establishment of the National Curriculum.

Changes in methodology have not been successful in maintaining pupil interest. Nor has the labelling of a foreign language as more or less academic. By putting more or

less intellectual and linguistic demands on learners there could be a danger of failing to provide academic challenge.

The global dominance and power of the English language together with changing trends in foreign language learning in schools, have collectively suppressed the impact foreign language learning may have had and instead produced indifference to foreign language learning. It is claimed that Britain continues to be judged as a nation of monoglots, whose interest and membership in the European Union does not extend to learning a second European language for business or leisure. *'Britain is often recognised as a country with profoundly monolingual assumptions and a widespread apathy towards learning other languages'* pronounces Stubbs (1994, p.193). This quotation highlights the fact that foreign language learning in England is currently falling short of educational aims embodied in the National Curriculum for modern foreign languages and national expectations embedded in the Nuffield Languages Report (2000). There is a gap between the rationale for foreign language learning, voiced by Cook (1991), Grenfell (1996) and Sorani and Tampani (1997), and the current level of expertise amongst school leavers past and present. Stubbs also confirms the paradox, that foreign language learning is not 'normal' (Johnson, 2001) and 'everyday' despite its place in the school curriculum. Little (1990) discusses the psychological profile of those foreign language learners who are gifted and yet there appears to be an over-reliance on the linguistic skills of others. Johnson (2001) adds weight to this: *'It is important for those of us who live with one language only to understand that we are the exception rather than the rule'* (p.6).

He is referring to monolingualists within a global context. The foreign language learners whose talent and potential for excellence can be identified and nurtured in schools will become the exceptions within a national context, which is that of people who traditionally are portrayed as reluctant foreign language learners and inhibited foreign language speakers. How this relates to the gifted language learner is discussed by Katzner (1979) who equates speaking only one language as equivalent to living in an enormous mansion and staying in only one room. In context, this analogy represents a failure to acknowledge Britain as multilingual and multicultural. He adds that to remain monolingual restricts one's view of the world and quality of life:

*"Those who acquire more than one language find fascinating new and different vistas opening before them, not only of practical opportunity but for the fulfilment of intellectual curiosity and the fascination of looking at the world from a background and viewpoint of another culture" (p.6).*

To extend this metaphor further: in the same mansion some rooms are more versatile and frequented by more people (languages with international or world status), others are used for practical purposes (for business) and some are used occasionally for guests (with tourists). Education should be equipping individuals with the courage and motivation to step outside their threshold and find these other rooms for living and working in. To use only one room is unusual. The American linguist Yuen Ren Chao (1981) interprets the metaphor more precisely when he refers to the 'monoglot's prison'. To be released from a prison cell does not make for an easy life. After a long period becoming institutionalised, the more difficult it is to adapt to increased linguistic freedom. The foreign language learner in England who prefers not to adopt a foreign accent when speaking the target language or one who does not attempt to use the foreign language at all, is still restricted to the prison grounds, preferring the

maximum security of the mother tongue. *‘Nobody really knows their own language until they can compare it with another.’* Byatt in Nuffield Language Report (2000, p.31).

Good foreign language teaching aims to promote interest in language and other foreign languages, according to the National Curriculum for Modern Foreign Languages (1999), and teachers, as positive role models, can encourage the individual to talk their way out of captivity. The first language will have shaped the personality or identity of individual learners, whose interest might be captured by the prospect of social and economic gain from foreign language learning. Negative attitudes towards learning foreign languages may persist as a consequence of the position of foreign language learning in school and the status of English. The success or failure of the individual foreign language learner may be influenced to some degree by cultural misgivings about the relevance of foreign language learning. Key events have contributed to the present day status of English as a global language and continue to shape monolingual and monocultural attitudes, to militate against foreign languages and foreign language learning. Foreign language learning is now part of a pupil’s entitlement in secondary school education and yet the subject is quietly decaying.

### **Foreign language learning in schools: general trends**

The current challenge for secondary school foreign language teachers centres on objectifying the aims embedded in the National Curriculum for modern foreign languages for the individual learner and the language needs of the country. The Programme of Study for Modern Foreign Languages (1999) seeks to encourage all pupils of all abilities to develop language skills and an understanding of the target

language, language learning skills and cultural awareness. The intention is to provide experiences and opportunities for the foreign language learner by making their learning meaningful and relevant, according to the Department for Education and Employment/ Qualifications and Curriculum Authority (1999):

*“Through the study of a foreign language, pupils understand and appreciate different countries, cultures, people and communities – and as they do so, begin to think of themselves as citizens of the world as well as of the United Kingdom” (p.14).*

There are four attainment targets in: listening and responding, speaking, reading and responding, and writing. At the end of key stage three, pupils aged fourteen are formally assessed. Older pupils aged fourteen to sixteen years are offered opportunities *‘to investigate, discuss and report on aspects of the language and culture of these (target language) countries and communities’* Department of Education and Science (1991, p.26) within the syllabus for the General Certificate in Secondary Education which offers official working languages of the European Union. Cultural understanding is promoted through the use of authentic materials, and communication with native speakers and opportunities in order to compare their own culture with others. The individual who is especially receptive to foreign language, with its new social and cultural conventions, could become the more successful foreign language learner, according to Byram (1997), who considers the role of culture in foreign language learning:

*“If and when they recognise that the foreign language embodies a different set of beliefs, values and shared meanings, they begin the shift of perspective which leads to reciprocity and reflection on both others and self” (p.19).*

He presents an outcome of foreign language learning which corresponds with the viewpoint expressed by Grenfell (1996) about the role of and effect on personality. Gifted foreign language learners must be linguistically and communicatively competent in order to understand and converse with a native speaker and be amenable and sufficiently intuitive to tolerate difference.

Since the launch of the National Curriculum in Modern Foreign Languages in 1992 there was an increase in the numbers of students who opted to study foreign languages at a more advanced level. The increasing prominence given to Modern Foreign Language teaching and learning may have sparked a revival of interest. Brumfit (1995) points out that:

*“More students than ever are opting to study languages at A-level and on undergraduate courses. Languages are seen as buying opportunities, as complementary skills worth the investment of time and effort” (p.127).*

Unfortunately this was short-lived. Only six per cent of all Advanced Level entries were in a foreign language in 1997. The Qualifications and Curriculum Authority reported a nine per cent drop in the number of Advanced Level candidates for French in 1998. This highlights the trend in schools reported by the independent Nuffield Languages Inquiry (2000), that most young people stop learning foreign languages after the age of sixteen and lack an adequate level of competence. Achievement is generally higher at Key Stage Three (age eleven to fourteen) and Grenfell and Harris (1999) comment on this:

*“There is more target language in the classroom...However, their normal classroom discourse is in English and few, it seems, are willing to speak the*

*foreign language spontaneously or to take the initiative in attempting longer utterances” (p.26).*

They add that progression and achievement slow down by Key Stage Four from the age of fourteen to sixteen years. *“The picture is one of progressing stagnation in language learning”(p.26).* Research undertaken in 1998 by the Centre for Information on Language Teaching and Research (CILT) and Barking and Dagenham LEA appears to support this. A survey into the popularity of languages in school resulted in pupils ranking modern languages sixth out of seven school subjects. *“Modern languages received an overall ranking of sixth out of seven when compared with six other selected subjects” (p.50).* Other subjects in the comparative survey were mathematics, English, science, geography, history and technology.

The publication in May 2000 of the Nuffield Inquiry into Languages put the business of language learning under scrutiny again. Set up two years earlier, its brief was to investigate capability in languages in the United Kingdom and to report on what should be done by the government and by schools and colleges to improve teaching skills, pupil participation and raise awareness of the merits of lifelong language learning. The main findings of the inquiry refer to the *‘lack of a coherent approach’* to foreign language learning (p.6) and an *‘impoverished system’* (p.7). The low take-up of languages at post - sixteen level, the closure of university departments and the shortage of teachers demonstrate an urgent need for a review of policy and practice.

*“Secondary school pupils lack motivation or direction. Nine out of ten pupils drop German, Spanish or French at the age of sixteen” (p.7).*

The report states that young people are at a disadvantage in the recruitment market, which portends a gloomy prognosis for school leavers. Poor or inadequate provision,

a lack of interest in the subject at school and a high drop-out rate in adult classes are all cited as contributing to the lack of gifted linguists. All of which restricts career choices and opportunities for school leavers or university graduates in European and global markets. Caborn (2000) adds:

*“It is important that employers who need employees with language skills send a clear message to pupils, students and teachers about the value of learning another language” ( DfEE 198/00 in Community Languages Bulletin no. 7).*

One aim for improving language teaching and learning in school must be to instil less provincial attitudes to higher education and career destinations. Talented linguists will have greater freedom and mobility within Europe where careers requiring a number of languages in the workplace are commonplace and skills are valued more highly. Today the real challenge is marketing modern foreign languages. There is a parallel with agricultural practices in the developing world. Polyculture is promoted to improve soil fertility and lessen the risk of crop disease due to over reliance on one crop. Such practices are artificial, unstable and prone to collapse. I consider that the over reliance on the English language has produced the same effect. The potential for excellence, that is, for the gifted linguist to flourish, is put at risk by monolingualism. Hawkins (1981) conjures up the image of delicate foreign language learners struggling against the strong prevailing wind of English in his analogy of language teaching in secondary schools as if it were ‘gardening in a gale’. Brown (1991) uses a similar metaphor within his pictorial representation of the ecology of language acquisition. He points out that there are innate factors, intelligence and aptitude, the so-called seeds of predisposition, that are not always able to germinate into foreign language achievement (the fruit of performance) and that the networks or roots of competence cannot be observed from above. Germination and growth take time and



care and there are periods of apparent dormancy or a talent is kept disguised. Growth could be stunted for gifted linguists who are at risk if the climate is too inclement, either in the classroom or in society. If Modern Foreign Languages are not ranked highly by pupils and the English are still monoglots, there may be a real problem in identifying the gifted linguist and nurturing their potential, especially if the environment is not offering optimal conditions for learning. Passow and Frasier (1996) relate this to education of the gifted in any field or discipline and signal the importance of good teaching:

*“The challenge is one of creating paradigms that take culture and context into account in order to enhance the possibilities for identifying potential of many kinds in all populations” (p.200).*

Talent for foreign languages is not universally acknowledged as a gift in Britain and consequently not awarded the recognition, as other academic disciplines are. 36,000 secondary school students were disappplied from learning a foreign language in 2001 according to the Green Paper 14-19: extending opportunities, raising standards (p.8) published in 2002. The gifted language learner can be identified academically but may choose not to use their skills willingly or widely if the ‘gift’ is not socially recognised. Nor will they if any plans to reduce the foreign language curriculum for key stage four pupils in secondary schools do go ahead. The gifted and talented language learner needs time and opportunities to nurture their talent. The Green Paper recommendations could hinder the good language learners from reaching maturity unless schools are prepared to promote foreign language learning more.

## Some foreign language learners are better than others

The reality is that not all school leavers are gifted linguists able to bring their skills to the workplace or to use in social situations. Some pupils learn slowly and will never achieve the skill level or communicative competence that an employer would expect or for conversation with a native speaker. *'Some learners never achieve native-like command of a second language'* Lightbown and Spada (1995, p.34). Those foreign language learners who are more successful, and can exercise more sophisticated control over their learning may possess particular gifts or personal characteristics that enable them to learn and perform better and consequently develop mastery of additional languages. The gifted foreign language learner according to Little (1990), seems then to know how to learn:

*"The most efficient learners will be those who know how to bring existing knowledge to bear on each new learning task- in other words, who have developed a degree of psychological autonomy... they must be autonomous to the extent of having sufficient independence, self-reliance and self-confidence to fulfil the variety of social, psychological and discourse roles in which they will be cast"* (p.82).

The gifted linguist may possess cognitive and affective skills which can effectively "attach" them to the practical task of learning in the same way that resolve and diligence are required in problem - solving or cracking a code. This enables them to acquire new knowledge and be proficient and creative with the foreign language, as they are learning and using it. Gifted linguists will want to broaden their opportunities to converse and interact with other foreign language learners or native speakers for personal reasons: social and cognitive gain. Ideally, the individual benefits would be

an enriched leisure and social life as a result of increased contact with people from outside the speech community and culture: Sorani and Tampani (1997) elucidate:

*“Lo studio della lingua straniera contribuirà ad allargare gli orizzonti culturali, sociali e umani dell’allievo per il fatto stesso che ogni lingua rispecchia i diversi modi di vivere delle comunità che la parlano ed esprime in modo diverso i dati dell’esperienza umana ( The study of a foreign language will contribute to widen the cultural, social and human horizons of the learners as each language is the mirror of the different ways of living of its speakers and it expresses differently the data of human experience)”*(p.39).

Gifted foreign language learners would want to search for meaning, seek out the familiar within the unfamiliar and endeavour to make sense of what is heard or read.

Despite negative attitudes and government intervention, which can influence personal and pedagogic decisions about the teaching of foreign languages, some foreign language learners do make significant progress. They may possess specific skills or unique personal qualities that promote learning and it is these attributes that will form the basis for this research.

### **Characteristics of gifted foreign language learners**

Sometimes giftedness may go unrecognised, if conformity is encouraged over creativity, because society does not celebrate linguistic diversity. If languages are not viewed in society as especially important, or only the preserve of the elite, then this opinion may continue to exert a strong influence on the status of foreign language learning nationally and on the perceptions of foreign language learners in schools. An additional outcome that impacts on the gifted foreign language learner in schools is the current shortage of foreign language teachers. The gifted linguist has specific

needs that are not being met, according to the Nuffield Language Inquiry (2000) ‘*The shortage of teachers, which is now acute and damaging the quality of provision in schools and colleges, is creating a vicious circle of inadequate supply*’. Of course the effect on individual foreign language learners can vary according to the strategy and skill of the foreign language teacher in school and the richness of the linguistic and cultural environment that they present in the classroom setting to nurture talent. As Parke and Ness (1988) comment:

*“Much of curricular decision-making and planning comes down to a question of balance. The curriculum must be balanced to respond to the unique learning of the gifted and their unusual make-up” (p.197).*

The foreign language teacher will have some knowledge of their pupils’ abilities and linguistic backgrounds and ideally should be providing a stimulating variety of learning activities that encourage creativity, which many researchers believe is the vital and defining characteristic of giftedness. (Renzulli, 1986, Runco, 1993, Porter, 1999). Certain individual qualities will predispose a learner to gifted behaviour within the foreign language classroom. Freeman (1998) asserts that the essentials for a gifted learner to enable them to develop creativity in their field include: motivation, knowledge, opportunity, creative teaching style and encouragement, acceptance of one’s personality and the courage to be different. Renzulli (1978) refers to three common characteristics: above average intelligence, creativity and perseverance, which are present in individuals judged to be exceptional. Johnson (2001) explores one characteristic: the influence of attitude and refers to ‘need achievement’.

*“It may be that people tend to divide themselves into “high achievers” and “low achievers” in general. The “high achievers” strive to do well at everything, including learning languages” (p.134).*

A positive attitude to foreign languages may be contributing to exceptional performance in foreign language achievement. This is bi-directional, in that success in foreign language learning can also increase the level of motivation and influence the value placed on academic learning. Individual task tenacity or perseverance towards the long-term goal, namely fluency and accuracy in a foreign language, will vary between individuals. Achievement is generally more dependent on attitude towards foreign languages and cultures than on the long-term vocational interests of young people, particularly at the age of eleven, when many children first start learning a foreign language. Adult learners have commented how they learned foreign languages with perseverance. Lineker (1999), in the Modern Foreign Languages National Curriculum document (Department for Education and Employment / Qualifications and Curriculum Authority) says:

*“My wife and I learnt Spanish and Japanese when I played at Barcelona and Nagoya. We spent hours and hours in tuition - yet we could have learnt either language years earlier at school” (p.15).*

The need to achieve was vocational and social in this example because it was helpful to the speaker to integrate more fully into the country and culture. An understanding of the process and a valuing of language learning can motivate adult learners and early exposure to other languages promotes language learning in the young. The age of a foreign language learner is not an accurate predictor of foreign language learning aptitude, according to Cook (1996), who discusses the belief that young learners are superior to adults. She refers to research evidence indicating that age is a positive advantage. What is critical is the setting for instruction *‘Age itself is not so important as the different interactions that learners of different ages have with the situation and with other people’* (p.110). A positive attitude to other languages and cultures is

fundamental to maintain interest in foreign language learning at any age, even when the reward from or benefit of foreign language knowledge is not immediate. In order to develop an understanding of the culture, the learner does need to have a degree of mastery of the foreign language. Byram (1987) adds this further dimension: the role of linguistic and communication skills, when he comments on the skill level required for cultural learning, which helps to promote the use of the foreign language as a medium rather than simply as a course of study. *'Learners need both the skills of fluency and accuracy in the language and the awareness of the cultural significance of their utterances'* (p.145).

Gifted foreign language learners appear to attach importance to linguistic skills that do not instantly advantage them. There is no immediate use for the foreign language outside the classroom and at a geographical distance from native speakers. Brumfit (1995) translates this as a challenge for foreign language teachers in making the classroom setting seem real and natural. *'The way the school curriculum is organised often mitigates against success in languages for many pupils'* (p.133). Time spent on foreign language learning during a week can be as little as one hour and forty minutes for pupils in some schools. Time and distance between foreign language lessons do not create a perception of distance from the foreign language in the minds of gifted learners. They can be more tolerant of their own feelings of uncertainty and accommodate any differences, presented both linguistically and culturally during the study of a foreign language, thriving on the variety and unfamiliarity, rather than being wary of dissimilarity. Joy (1994) discusses the value of role activities in the foreign language classroom, which encourage learners to risk take, read a situation and adapt accordingly:

*“In short, to behave ‘in role’ is to behave acceptably in culturally defined ways. And even the eccentric or rebel needs to be familiar with ‘taking roles’ before ‘making’ or ‘breaking’ them” (p.168).*

It could be said that gifted foreign language learners construct their own rationale for learning a foreign language. They bring a level of confidence and their personality to the foreign language classroom, together with a degree of learner motivation, which they maintain and these attributes could explain why the gifted foreign language learner concentrates their individual effort into a positive approach towards foreign language learning. Their gift or talent for foreign language learning is defined as ‘language aptitude’ and could be the discrete, specific set of skills with language that not all learners have the capacity or will to develop. Foreign language learning is an amalgamation of cognitive and social processing. Gifted foreign language learners interact within a social setting. Platt and Brooks (1994) discuss this in relation to a model of foreign language learning:

*“What we are suggesting is a more robust view that incorporates an understanding of talk or, more specifically, speech activity as cognitive activity that humans press into service in order to solve problems, regardless of its communicative intent” (p.499).*

Thus interaction may be a conscious decision made by gifted foreign language learners who actively choose to take or create opportunities to speak or contribute towards a foreign language task, using cognitive skills and metacognitive strategies to plan, monitor and evaluate their learning. O’Malley and Chamot (1990) look at the strategies used by foreign language learners and note the presence of social strategies. *‘Social and affective strategies involve interacting with another person to assist learning or using affective control to assist a learning task’ (p.139).* The learning task

is social because other foreign language learners may contribute collaboratively to an activity, the aim of which is to guide and foster communication. It is the gifted foreign language learner or the foreign language teacher, according to Vygotsky (1978), who provides “scaffolding” or structured help to the language learner not capable of carrying out a task independently. He defines this as the zone of proximal development, which is:

*“the difference between the child’s developmental level as determined by independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p.85).*

This may be more applicable to the classroom setting. Native speakers in natural settings may carry out rough tuning or caretaker talk to assist a foreign language learner but they do not usually support or “scaffold” the learner as foreign language teachers do. Nor would a native speaker show the same delight at the older learner’s utterances and as a consequence, engage in enthusiastic, patient support like a parent does with a small child learning the mother tongue. In a classroom setting, the only voice that the learner normally hears using the foreign language is that of their teacher. The good foreign language teacher has the ability to suspend disbelief for pupils in a foreign language setting that is not ‘real’. This lack of authenticity together with the time-delayed relevance to foreign language learners may be regarded as insignificant by the gifted, but conversely will affect many foreign language learners, according to Hawkins (1981). He believes that motivation is one of the more fundamental factors in foreign language learning. He clarifies that foreign language learning does not appeal to all because it is inherently different to learning one’s first language:



*“The excitement (motivation) of discovering a new concept is missing- the learner already knows the concept exists. The excitement of learning a new name for it is less compelling”(p.107).*

Foreign language learning is a cognitive experience that does not introduce the learner to new concepts but teaches how to re-label them. The foreign language learner already possesses a mechanism for communication (the native, first language) and some recognition and understanding of its rules and idiosyncrasies. This is an essential part of cognitive maturation, with the learner setting the pace, acquiring language and knowledge of self and surroundings in a natural setting. Motivation is the conscious choice made by the foreign language learner, the level of which will determine how much control the learner has over the foreign language and how much energy they choose to exert on a particular language task. The gifted foreign language learner must therefore be highly motivated. Motivation is not static, and will vary between tasks and between individuals over time. The scenario that Hawkins (1981) describes may fit older foreign language learners who have stronger opinions about other cultures. They are probably more reflective at the age of fourteen and aware of the usefulness of foreign languages when they begin to consider their academic strengths and weaknesses in relation to more advanced study and career paths, than at the onset of foreign language learning at eleven. A foreign language learner can elect to use the latent ability they possess or perceive foreign language learning as extraneous to their individual needs. Some intellectually gifted pupils may actually question the whole business of learning foreign languages as a response to the knowledge they receive, the teaching style and learning environment than as a consequence of their own performance as Porter (1999) illustrates:

*“ If some children are choosing to invest their energies elsewhere, this will have at least as much to do with the way educational activities are structured as it has to do with the children’s personality” (p.193).*

This has implications for foreign language teachers who should consider changing patterns in task motivation when producing classroom materials and recognise and monitor variations in individual pupils. Teachers of the gifted need to be aware of the nature of motivation and note any observable variations, which may result in an acceleration or deceleration of pupil progress in foreign language learning and level of competence and performance. Motivation could be a strong predictor of the gifted, creative linguist whose rate and depth of learning intensifies as a result of consistently high levels of motivation towards the target foreign language and culture. They may continue to maintain interest and persevere with the long-term learning of a foreign language when the short-term tasks become cognitively more demanding.

Cognitive ability and maturity may prove to be other critical factors, which underpin or interact to some degree with motivation towards foreign language learning. Differences in cognitive ability will affect the learner’s capacity to process teacher input and the speed at which they can recall knowledge and produce language in response to the task. A learner’s language is characterised by *“...variability in the intuitions about and production of the L2 at various stages of L2 development”* Towell and Hawkins (1994, p.5). The level of cognition, that is, the ability to know or perceive, described as intellect, may be a fundamental component of a gifted foreign language learner’s profile of characteristics. In context, a gifted linguist may have a higher level of general intelligence or cognition, which can be observed in the foreign language classroom as aptitude, that is the possession of exceptional levels of

linguistic and communicative competence. All learners will go through phases of variability, and the gifted will demonstrate they can work more rapidly and accurately. Porter (1999) discusses creativity and its close relationship with ability. She adds that *“gifted young children are those who have the capacity to learn at a pace and level of complexity that is significantly advanced of their age peers”* (p.33) and they will require a *‘conducive environment’* to enable creativity to function. A more intelligent individual may manage the foreign language learning task better. An older, more cognitively mature learner may become more successful because they possess an understanding of how to learn and how language works. *“Cognitive strategies act on language in the acquisition process and may be specifically involved in production of language”* according to Grenfell and Harris, (1999) who affirm that hearing and using the foreign language is an intellectual challenge to the foreign language learner, and an example of an opportunity for *“mental manipulation of information”* and *“mental engagement with language”* (p.44). The interaction between teaching and learning styles as an explanation for differences in success in foreign language learners is discussed in chapter 3 (pp.124-125).

Mitchell and Myles (1998) consider the role of cognition and the commonly held view that general intelligence contributes to individual differences in language learning ability or rate:

*“There is clear evidence that L2 students who are above average on formal measures of intelligence and/or general academic attainment tend to do well in L2 learning, at least in formal classroom settings”* (p.18).

On this basis, it is reasonable to expect all gifted linguists to be highly intelligent or all intelligent individuals to succeed in foreign language learning. However, Mitchell

and Myles (op cit.), Grenfell and Harris (1999) and Johnson (2001) have all indicated that not every above average pupil does learn a foreign language successfully. The variability found amongst foreign language learners is more 'extreme', according to Mitchell and Myles (1998), than that amongst first language learners. The subsequent variation in achievement suggests that there is a range of influences operating on the gifted foreign language learner, affecting their capacity for individual performance and extending their learning beyond that of the average ability pupil.

The foreign language teacher is facing learners with individual identities whose interest has to be captured and potential released. The likelihood of an individualised learning programme, tailor-made to specific linguistic needs and experiences is remote. Gifted foreign language learners will follow the same programme of study as all other learners in all schools in England and Wales, and there is a body of research indicating that foreign language learning is staged (Dulay and Burt, 1973), (Ellis, 1989), Towell and Hawkins, 1994). Learners progress along this learning continuum at their own pace. The learning pattern is systematic, whatever the target foreign language, and yet teachers observe that individual output varies. Very few foreign language learners according to Mitchell and Myles (op.cit.) appear to be as successful as native speakers:

*“even if L2 (second language) learners can be shown to be following a common development route, they differ greatly in the degree of ultimate success which they achieve” ( p.18).*

Many foreign language learners stop short of native-like competence although according to Littlewood, (1989), they are processing the language in similar ways.

*“There seem to be typical sequences of development, from which individual variations*

*are mainly of a minor nature*” (p.51). Language input provided by the teacher is generally consistent for all learners in a class, however variations in individual performance suggest that certain factors influence cognitive learning. It appears that no isolated factor operates independently to produce the characteristic behaviour of a gifted foreign language learner culminating in a qualitatively more exceptional performance. A number of factors are at work exerting influence to a greater or lesser extent on a foreign language learner: attitude to foreign language learning, age, motivation and cognitive ability. These are differences, common to all learners, and at the same time they may prove to be critical in identifying the gifted linguist. Each learner responds to the foreign language as an individual, according to their level of motivation, their personal response to cultural attitudes to foreign languages, and their general intellect and the outcome is their own measurable achievement. Spolsky, (1989) refers to these factors or conditions that contribute to foreign language learning success. He notes that an individual’s profile of learner characteristics is unique to that learner. Some may dominate in one individual and in others a negative element may explain language learning failure. He states that:

*‘the effect of any one condition can be masked by the strong influence of other conditions; thus aptitude may be masked by attitude’*(p. 207).

Some learner characteristics may prove to be consistent predictors of performance and creativity. They may work well combined with other characteristics or be strong independent predictors. Their weighting and how they interact could ultimately be responsible for shaping skill boundaries. For example, each constituent skill defined as a component part of cognition may have a role in foreign language learning, not necessarily of equal strength or weight but exerting some influence on foreign language learning. Foreign language aptitude may be closely associated with general

cognitive ability and share characteristic behaviours or skill components, such as verbal ability and memory for processing. Aptitude may be influenced or conditioned by other factors, for example motivation. Draycott (1997) adds:

*“Aptitudes are the result of the interaction of heredity and environment. We are born with certain potentials and we begin learning immediately. What we learn makes it possible for us to learn more.” (p.1)*

Aptitude may be a static learner characteristic in the same way that cognitive ability is fixed. The presence of language aptitude does not necessarily result in foreign language learning success. Aptitude may be enhanced by training and instruction, and motivation or interest in a particular task may effectively trigger sustained learning. It is this interaction with other learner characteristics that is interesting. Seeking out the combination of learner characteristics which influence successful foreign language learning is an area of personal interest in this research and could be of practical use in schools.

### **Summary of key issues**

- Although there are common developmental stages involved in learning any foreign language, there are individual differences between foreign language learners, which affect the depth and pace of their learning. These would be evident as attribute variation or level of demonstrable skill.
- Gifted foreign language learners may possess a range of these skills and attributes, such as cognition and language aptitude, which contribute to their success in mentally processing, comprehending and producing the target language.

Individual motivation and attitude may also assist the foreign language learner in managing the language task. These skills or attributes are referred to as:

**Individual Learner Characteristics**

- The individual learner characteristics need to be identified, described and investigated in order to determine those which favour good language learning. They could be used as markers of progression and measures of performance in speaking and writing a foreign language.

### **Rationale for research**

An individual linguistic talent, identified and appropriately nurtured, should flourish.

A strategic approach, which takes the initiative regarding foreign language teaching and learning, is a predictive rather than reactive model of foreign language learning planning. It responds in a practical way to the language needs for the twenty first century and could ultimately be responsible for steering the future form and focus of language learning at an operational level in primary and secondary schools.

Early identification and formative assessment of gifted foreign language learners could be possible using valid, reliable measures, which can signal and assess differences in individual learner characteristics. The aim of my research is to contribute to the field of foreign language learning research and ultimately to enable foreign language teachers to carry out earlier identification of gifted foreign language learners. Using measures of learner characteristics as predictors, teachers could identify those pupils, with the potential to be gifted foreign language learners. Recognition of individual foreign language giftedness enables teachers to establish

and promote areas of proficiency and strengthen learning needs or areas of weakness. Early diagnostic intervention would have implications for the grouping of pupils, the choice of foreign language and the methodology or teaching style to provide for the range of learner styles and strategies.

Learners may have little control over their developmental and maturational (cognitive) differences. However, psychological or affective differences can be tempered and the negative effects of our Anglo-centric culture minimised. Consequently, superior teacher knowledge with more precise individual learner profiles informs curriculum planning can target the gifted linguist within a culture that aims to provide language learning opportunities for all children. Those learners with a flair for foreign language learning should be encouraged to continue to participate and communicate using their linguistic skills into adulthood for personal and social as well as for vocational reasons. Improving pupil performance and participation are realistic long- term goals, which could be met, although the issues raised are of course not purely school based. However the public arena for change could be in those schools which can demonstrate progress with improved pupil numbers and achievement levels. A sharper focus in schools would raise the profile of Modern Foreign Languages and enhance teaching and learning.

Another outcome could be an increase in demand for enhanced language learning skills from future employers who as school leavers with improved language skills themselves, will consequently value and respect those skills in others. To be competent at communicating in another language is viewed by industry as an increasingly more important skill or talent, vital to an individual's future and job



prospects. Webber (1997) discusses the importance of British businesses developing an on-going response to foreign language need. *“They should look ahead, to identify language requirements before they arise, rather than trying to meet a need once it has already emerged”* (p.40). The response from industry to the government Green Paper plans to end compulsory foreign language learning suggests that employers are not the obstacle to expanding foreign language learning opportunities. Digby Jones, director general of the Confederation of British Industry (2002) comments in the Times Educational Supplement:

*“A language adds to an individual’s employability. Without these skills, British young people may be less able to compete in global organisations or companies”* (p. 6)

Conducting research into foreign language learning in the current educational climate may help to address some of the concerns expressed by educationalists and employers.

### **Structure and organisation of this thesis**

The school based research I propose to undertake will identify individual learner characteristics, which may predict who the gifted foreign language learners will be. This research could provide a bridge between foreign language learning theories and education of the gifted. Foreign language learning theorists such as Skehan (1989), recognise the value of undertaking research, which is longitudinal.

*“It would be useful to have more naturalistic, more observational, more self-report and longer- term data which could provide us with an insider’s*

*perspective on the learning, and give a more dynamic picture which might be revealing about the patterns of causation involved over time” (p.147).*

A range of attributes will need to be isolated, explored and assessed in terms of their value as predictors of gifted foreign language performance. A more detailed examination of foreign language learning and gifted behaviour will be undertaken to explore the processes involved in foreign language learning and to ascertain which individual learner characteristics are fundamental for gifted foreign language learning and performance. The associated literature may demonstrate more fully how individual learner characteristics operate and associate and whether they interact with others such as foreign language attitude and consequently contribute to foreign language learning success. A composite profile of gifted foreign learner characteristics could result after undertaking some assessment of the cognitive and linguistic skills of a group of foreign language learners, including gifted foreign language learners, together with information about their individual attitudes and motivation to foreign languages and cultures.

Consequently, Chapter Two provides a literature review of the main themes namely, the theories associated with foreign language learning together with the role of creativity, as an aspect or indicator of gifted performance. A range of individual language learner characteristics are of interest including: cognitive ability, language aptitude, memory, motivation and attitude to learning foreign languages and these as potential predictors of gifted foreign language learning can be explored more fully in Chapter Three. Chapter Four provides a theoretical and conceptual framework for the research from the language learning and gifted education fields. Chapter Five explores and rationalises the methodological approach selected and the techniques employed to

collect and handle the selected data. Quantitative findings are presented in Chapter Six together with qualitative findings from pupil creativity test interviews. Chapter Seven examines the empirical findings in relation to the theoretical framework (presented in chapter four). The concluding chapter considers the implications of the study, an outcome of which could be the identification of a diagnostic tool for foreign language teachers, and an indication of further directions for future research.

## **Chapter Two: The Literature Review**

### **Foreign language learning theories and models**

The discussion in this chapter focuses on the development of theories and models of foreign language learning and acquisition. The intention is to explore foreign language learning theory and discover which individual learner characteristics are present and of those, which in particular are involved in gifted foreign language learning and performance. Contributions from linguistics and cognitive psychology together with the theory of foreign language learning in a classroom setting will link with the subsequent discussion related to giftedness and creativity.

### **A theoretical explanation of language learning from the field of linguistics**

Behaviourist theory posits that verbal learning is a part of general learning and all learning is based on habit formation and is evidenced by a change in behaviour. Skinner (1957) supports this generalisation and asserts that language, like all other learning, is as a result of influences from outside the individual. Lightbown and Spada, (1993) comment: "*Behaviourists view imitation and practice as primary processes in language development*" (p.2). This view might partly explain very early language development and it is assumed that foreign language learning starts off with these habits, which may help or hinder foreign language learning, depending on the level reached by the learner in the first language. Errors are made and these are seen as the result of interference from the first language.

Lightbown and Spada refer to this as the 'Contrastive Analysis Hypothesis', which theorises that foreign language learners makes errors if the target language is structurally different to their first language. They comment that this explanation is too simplistic and conclude: "*the behaviourist account has proven to be at best an incomplete explanation of second language acquisition*" (p.25).

A more complex theory, written in response to behaviourism, was expounded by Chomsky (1976), who describes the '*essence of human language*' (p. 29) as Universal Grammar. Cook (1988) clarifies that this is a theory of language knowledge (grammar), which applies to all languages (universal):

*"Acquiring language means learning how these principles apply to a particular language and which value is appropriate for each parameter.... the importance of Universal Grammar is its attempt to integrate grammar, mind and acquisition at every moment"* (p. 2).

Universal Grammar is then a theory of all language and how it is learned or acquired. Language acquisition is innate and children develop language because they are biologically programmed to do so, according to Chomsky, who refers to the language faculty within the brain as the Universal Grammar which is made up of two components: principles and parameters. The former governs the structures permitted in all languages, the latter explains why certain structures exist in some languages. Cook (1996) discusses the linguistic theories of Chomsky and their application to second language acquisition:

*"Universal Grammar is the black box responsible for language acquisition. It is the mechanism in the mind which allows children to*

*construct a grammar out of the raw language materials supplied by their parents” (p. 262).*

Chomsky points out that Universal Grammar is probably not available to very young children and develops with time or maturity *“the order and timing of this maturation appear to be rather uniform despite considerable variation in experience and other cognitive faculties”* (1986, p.54). The first language is acquired and ‘Universal Grammar’, the ability to discover language rules, is also in place.

### **Applying the theory of Universal Grammar to foreign language learning**

The order that language is learned in foreign language learning was investigated by Brown (1973), who studied ‘morphemes’, the smallest units of grammar, in his study of children learning English as their first language. Research into other languages followed, undertaken firstly by Dulay and Burt (1973). They found that the order of acquisition in learners was ‘strikingly similar’ (Myles and Mitchell, 1998). Gass and Selinker (1994) criticised early methodology in their review of Dulay and Burt, yet they note that the formers’ findings have remained intact, showing that there appears to be a set order, no matter what the language is or where it is learned. According to Ellis (1994) further research confirms that staged development occurs in other language domains, including syntax:

*“Despite the differences in the final states towards which learners of English and German are targeted, marked similarities in the sequence of acquisition of negatives in English by L2 learners is not dissimilar to that*

*of children acquiring English as their LI” (p.101).*

Foreign languages have a commonality, in that they all depend on structure and rules although they all possess variations in these. Having followed a pre-programmed route to acquire a first language, foreign language learners will rely on their understanding of language gained from this to enable them to learn additional languages. Chomsky (1988) explains:

*“Acquisition of language is in part a process of setting the switches one way or another on the basis of the presented data, a process of fixing the values of the parameters” (p.63).*

Myles and Mitchell (1998) support the theory and refer to error analysis, which they state shows that learner errors do not come from the first language habits, but from foreign language learners newly emerging interlanguage, which has errors constructed by the learner. The relationship between language and cognition differs in the foreign language learner to that of the native speaker. Foreign language learners know things that they have not acquired from the environment around. Their learning depends on the interaction between the learner and the situation. Cook (1991) confirms that this corresponds with foreign language learning in a taught setting rather than the natural, real-life setting. She analyses the different explanations for first language learning to see if they explain foreign language acquisition and refers to the Minimalist Programme, a 1993 revision made by Chomsky, in which he concludes that all learning is vocabulary learning. The foreign language learner has to acquire vocabulary for meaning, pronunciation and to know how words behave in sentences. The implications for teaching purposes are that learners should be taught about the way words work in sentences:

*“Hence Universal Grammar clearly indicates that language teaching should consider how vocabulary should be taught, not as tokens with isolated meanings, but as items that play a part in the sentence by saying what structures and words they may go with in the sentence” (p.158).*

Universal Grammar may play a central part in foreign language learning, yet there are variations from first language competence in learner personality, behaviour and experience which can affect the quality and quantity of learning of foreign language performance. Myles and Mitchell (1998) note this in their analysis of its usefulness when applied to foreign language learning. The concept of Universal Grammar views the learner not as an individual but “as some kind of idealised receptacle for the UG blueprint”, thus focusing more on linguistic analysis and less on the learner. They compliment the former for its strength and point out that a criticism of the methodology could be that it ignores some aspects of foreign language learning:

*“The social and psychological variables which affect the rate of the learning process are beyond its remit and therefore ignored” (p. 70).*

Universal Grammar provides an important theoretical explanation of how language is learned and is a model of language knowledge that is available to all language learners. Chomsky (1972) considers how this knowledge becomes available and suggests that it does not become ‘extinct in older learners’ but there are limits in what a foreign language learner can do as a result of short-term memory constraints. Towell and Hawkins (1994) develop this point:

*“Universal Grammar is a constant background to the language learning process.... Like any background, it conditions but does not determine what happens. The actual learning process is contingent upon the nature and*



*abilities of the learner, the motivations of the learner, the degree of similarity between the two (or more) languages in question and the kinds of exposure to the language which are available” (p. 246).*

They recognise that Universal Grammar gives an individual learner an idea about the nature of language, but does not explain the subsequent individual variations in performance. There is wide variation in linguistic awareness.

### **The Monitor Model**

Krashen (1977, 1978, 1982, 1985) evolved the Input Hypothesis Model as an attempt to provide a more comprehensible and comprehensive theory of foreign language acquisition, which does take account of variability. His model of foreign language acquisition is made up of five hypotheses which include: Acquisition-Learning hypothesis, Natural Sequence hypothesis, Monitor hypothesis, Affective Filter hypothesis and Comprehensible Input hypothesis. Krashen (1989) firstly discusses the two ways of making progress in another language by distinguishing between language acquisition and language learning:

*“Acquisition is a subconscious process that is identical to the process used in the first language acquisition in all important ways.... Acquisition produces what Chomsky (1965) calls “tacit competence” or a “feel” for language. Learning is conscious knowledge, or “knowing about” language. In everyday language, when we talk about “grammar” or “rules”, we are referring to learning, not acquisition” (p.8).*

He asserts that language performance, including fluency and accuracy, is as a

result of acquisition. The 'Monitor' is the editor of language, using rules, which he says can slow down and disrupt performance as it scans and corrects language. The Monitor works according to Krashen (1982), when input (language) meets an affective filter, which either enhances or impedes learner progress. Cognitive Organisers impact on the input, and language is edited before the learner utters a response to input. Language is acquired through a natural order and affective (emotional mood / behaviour) barriers to foreign language learning, including anxiety, low self-esteem and low motivation can filter out or prevent learning. Krashen (1989) attaches tremendous importance to the presence of comprehensible input, particularly in a foreign language classroom context. A foreign language learner in school is reliant on hearing language and developing the ability to communicate and a formal classroom setting is the best environment for a beginner. *'A well taught language class can give beginners a concentrated dose of comprehensible input from the first day'* (p.11), when the affective filter is low.

He considers individual differences and notes that there are variations in performance as a result of Monitor use. Over-users may place emphasis on correctness and this can delay or inhibit output, and conversely Monitor under-users are less grammatically accurate.

Krashen initially gained popularity with his theories of comprehensible input, however Coyle (2000) cautions that *"far less emphasis has been placed on what the learner might do with that input"* (p.172). Krashen did not see a central role for

language production and Swain (1985) strongly contests the prominence of comprehensible input in the language learning theory he proposes. Her “Output Hypothesis” is based on the understanding that language and the production of language are not the same. The latter can only be accomplished if the learner is encouraged to create language output in the spoken and written form. Speaking aloud causes the learner to make choices about grammar and try out hypotheses to communicate effectively. If the process of using language is important for development then this “*pushed output*” will stretch linguistic capacity and grammatical proficiency. Comprehensible input alone will not produce native-speaker levels of accuracy. Swain et al (1989) point to restricted opportunities in learner-led talk in a teacher-fronted classroom, which inhibits grammatical competence. The main evidence for the Output Hypothesis came from their research carried out in Canada (Development of Bilingual Proficiency Project), which examined immersion students learning French. Ellis (1990) comments that it is “*important to recognise that the Output Hypothesis predicts that production will aid acquisition only when the learner is pushed. Opportunities to speak may not in themselves be sufficient*”. It would seem that the Output Hypothesis bridges the gap between theories of language learning and language use. Although all foreign language learners follow the same learning route, some will learn faster and travel further than others.

McLaughlin (1987) is also critical of the Monitor model for methodological reasons, because it is not easily tested and the data is subjective. Skehan (1989) adds that if there is only room for natural and universal processes to take place

there can be no room for individual difference. *“The assumption is being made that, given comparable input, all learners will process the data in the same way and at the same speed”* (p. 3). More recently Mitchell and Myles (1998) have added to this discussion stating that the Affective Filter hypothesis does not provide a suitable explanation of how individual receptivity alters the level of learning:

*“Krashen’s main overall weakness was the presentation of what were just hypotheses that remain to be tested, as a comprehensive model that had empirical validity. He then used his hypotheses prematurely as a basis for drawing pedagogical implications”* (p.39).

However, Ellis (1990) describes the Krashen model of foreign language learning as the best known foreign language acquisition theory, developed to account for the ‘natural’ nature of foreign language learning, and constructed with classroom learning in mind. Larsen Freeman and Long (1991) comment that Krashen advocates:

*“.. a focus on meaning... proscription of structural grading and error correction ...and creation of a positive affective classroom climate in order to “lower the filter”* (p.244)

It is worthy of note that the work of Krashen stimulated much debate and additional research either to support or to refute its claims. Cook (1996), describes the Input Hypothesis as a model to cover conscious learning. Johnson (2001) reflects on the usefulness in distinguishing between learning (characterised by error correction and rule isolation), and acquisition. The latter is the process of picking up the language, as one would expect to if one were living in the target

language country. Barber (1980) describes the natural setting in her personal account of her linguistic experiences. She comments on the struggle to find the right word with native speakers and usefully assesses that “*social pacing turns out to be more important than grammatical correctness*” (pp. 29-30). In a school setting, pupils rely on input from a teacher, and lessons are so short that pupils may be expected to speak before they have sufficient knowledge or time. Social pacing in the classroom context means taking part in a speech act and attempting authentic participation. This demands more of the foreign language learner and is not the same as learning the first language, which has a silent period, when a learner listens and acquires language knowledge. Speaking is a result of acquisition and not the cause of it. The foreign language learners’ first language may help however, according to Cummins (1980), who describes knowledge about language as Cognitive Academic Language Proficiency (CALP). He asserts that this is the individual’s ability to use their first language as a tool for learning. Learning to read includes learning about the existence of patterns and rules and sounds, which produce meaning. A well-educated pupil is likely to possess more superior cognitive academic language proficiency and this would assist in helping foreign language input to be more comprehensible. This seems to suggest that gifted foreign language performance could be influenced by cognitive ability and in particular, verbal ability in the first language.

The home and school setting may influence the pace and depth of first language learning and this could contribute to foreign language proficiency at the same time as the affective influences can positively benefit or hinder this progress. Bruner

(1985) proposes that parents possess a Language Acquisition Support System that helps them to provide an appropriate linguistic environment for their children:

*“Language is not encountered willy-nilly by the child; it is shaped to make communicative interaction effective- fine-tuned” (p.39).*

Support in a foreign language learning context could encourage or dampen attitude to foreign languages and cultures. Parents may not be able to modify linguistic competence, according to the principles of Universal Grammar but could exert some influence on affective filters.

### **Cognitive and affective factors influence foreign language learning**

It is becoming apparent that external and internal forces can impact upon a learner and contribute to the individual performance and competence of a foreign language learner. Research into foreign language learning has moved away from a general examination of language within the linguistics domain, including performance analysis and developmental sequences common to all foreign language learners, towards the individual foreign language learner. The shift of emphasis moves towards the constraints on performance posed by variations within individual learners. Selinker (1972) reinforces this:

*“A theory of second language learning that does not provide a central place for individual differences among learners cannot be considered acceptable” ( p. 213).*

To understand how foreign languages are learned is critical, however, the incompleteness of learning and gifted performance are the outcomes of foreign

language teaching and can be observed and measured within a group of foreign language pupils. The explanation for this may rest in the field of individual learner characteristics and further exploration of those exerting influence on individual foreign language learning success will first consider the role of cognitive ability.

### **The role of cognition**

The importance of cognition, without which foreign language learning cannot be explained, is stressed by Larsen Freeman and Long (1976):

*“It should come as no surprise if a mental process, (second) language learning, is not successfully explicable by any theory which ignores linguistic and cognitive variables”* (p. 266).

Some aspects of foreign language learning are explained by cognitive theory, in that cognitive learning accounts for a learner developing procedurally, by being provided with opportunities to practise using what they know, and so gradually improving their performance. Anderson (1983) points out:

*“Human intelligence comes from both having the right knowledge and making it available at the right time”* (p. 69).

Cognitive theorists of foreign language learning including Anderson (op.cit.), McLaughlin (1983), Rumelhart and McClelland (1986) and Bialystok (1990) are interested in the processes involved in learning the foreign language and generally believe that linguistic information is one type of information processed by the brain. Other aspects, such as the order of acquisition and the part played by foreign second language instruction may not be fully explained by a cognitive theory.

Cognitive theories of foreign language acquisition describe the processes individual learners use to gain meaning from written or aural information. Language information is processed and stored for different purposes in a conscious, controlled manner or automatically. This process is continuous. Lightbown and Spada (1993) explain:

*“Gradually, through experience and practice, learners become able to use certain parts of their knowledge quickly and automatically that they are not even aware that they are doing it” (p. 25).*

A useful analogy is learning to drive a car. The learner driver has mechanical tasks to carry out in a set order and at the same time multi-visual stimuli compete for his or her attention. Initially the learner has to concentrate consciously in order to select the correct procedure to drive the vehicle and pay heed to other traffic, weather conditions, the Highway Code and also listen to the coaching provided by the driving instructor. Practice usually improves performance and on demonstrating an approved standard, the learner is assessed as competent to drive solo. Learning is the transfer from short term memory functioning to the long term memory, where more automatic processing takes place requiring less of the learner's attention.

### **The role of memory in cognition**

Foreign language learning involves input and output having to pass through short-term memory; where processing is slow and form-focused and capacity is limited,



and it is here that information is filtered through to the long-term memory. There is movement between levels within long-term memory according to Karmiloff-Smith (1986), and there are two types of long-term memory concluded by Anderson, (op.cit., 1985), declarative long-term memory and procedural long-term memory. Anderson describes the shift and overlap of mental processes involved in language comprehension. Short-term memory is involved initially and information is processed (analysed). Encoding takes place to construct meaning from the foreign language input. Long-term memory stores lexical information and the interplay between the short-term memory and the long-term memory enables the learner to identify the meaning of individual words. Anderson developed a cognitive model, the Adaptive Control of Thought model (1983,1985), which focuses on the role of declarative and procedural knowledge within a general cognitive model of skill acquisition. The model describes the move from declarative to procedural in three stages and the skill of the foreign language learner strengthens with practice, as facts become better known and are completed more automatically. Mitchell and Myles (1998) comment on the 'incremental' nature of foreign language learning attributed to the Anderson model. A foreign language skill becomes more rapid (autonomous stage) after a description of the procedure is learned (the cognitive stage) and a method for performing a skill is worked out (associative stage).

Towell and Hawkins (1994) are critical of Anderson and reject the idea that his model can be used for all aspects of language acquisition. They produce their own model of foreign language acquisition in relation to fluency development. Mitchell

and Myles (op.cit.) comment that Towell and Hawkins (op.cit.) have incorporated aspects of the Anderson model within a Universal Grammar approach, acknowledging the role of the first language, and of declarative knowledge within long term memory, and its interface with procedural knowledge via the short term memory. Towell and Hawkins attempt to explain how Universal Grammar is used during language learning and performance. Rules, formulas and reorganized information are processed within the short-term memory which receives input and produces output (interlanguage). They add that if a learner has used up all the available memory space to extract meaning then they cannot pay attention to form. Only by being able to listen to the message (from input) and understand it as a result of automatic processing, can any new learning take place. Their model is an attempt to link linguistic and cognitive approaches to the study of foreign language learning. They quote Harrington and Sawyer (1992) who stress the importance of working memory in the development of reading skills in a foreign language, yet it has limitations explained by Anderson (1983) with regard to his Adaptive Control of Thought theory:

*“The process is slow because interpreting requires retrieving declarative information from long-term memory.... The interpretive productions (ie. general problem solving and analogy) require that the declarative information be present in working memory and this can place a heavy burden on working- memory capacity” (p. 231)*

If the capacity of working memory can vary between individuals, then it would appear that the transfer between short-term memory and long-term memory could be impaired in individual learners with poor short-term memory. This could result

in a reduced skill level in speech performance and may be a key factor in establishing why some learners are better than others. On a practical level, if the working memory, or short-term memory capacity limits the amount of knowledge that can be put to use from long-term memory, then it may be possible to isolate short-term memory capacity in foreign language learners. Further investigation may indicate that short-term memory can contribute to individual differences in foreign language performance.

A similar idea to Anderson's Adaptive Control of Thought model is contained within another cognitive processing theory, connectionism, which also attributes language learning to movement from controlled to automatic processing. This takes place via the strengthening of neural connections as an outcome of active multi-processing. Accordingly, foreign language learning is not a unique skill but is learned by the same principles as other cognitive skills. Rumelhart and McClelland (1986) pioneered early work into connectionism and additional research into connectionism and foreign language acquisition was undertaken by Sokolik and Smith (1992), and N. Ellis and Schmidt (1997). The latter relied on laboratory research using computers to handle artificial language and fragments of language data. Mitchell and Myles (1998) comment that the principle approach behind connectionism is that:

*"learners are sensitive to regularities in the language input (ie. the regular co-occurrence of particular language forms) and extract probabilistic patterns on the basis of these regularities" (p. 79).*

Larsen Freeman and Long (1991) refer to connectionism as Parallel Distributed

Processing (PDP), a cognitive model based on the notion that learning is the consequence of multiple processing and the build up of associative patterns over time rather than rule learning. Neural links become strengthened or weakened through activity or non-activity. N. Ellis and Schmidt (1997) comment:

*“These effects are readily explained by simple associative theories of learning. It is not necessary to invoke underlying rule-governed processes”* (p.152).

Their work resulted in a close match between human and computer data and a suggestion that learners who do not progress in the foreign language are not able to make low level skills automatic. The more successful language learners would make stronger links and larger networks. Connectionism may explain ‘stopping short’ in foreign language learning, referred to as “fossilisation” by Selinker (1972) and “incompleteness” by Schachter (1990), a noticeable characteristic of foreign language acquisition, particularly in adults. The learner never loses their native accent. They use non-grammatical construction in the foreign language and are non-intuitive when interpreting some sentences. Furthermore, a connectionism explanation for foreign language learning asserts that performance strengthens with practice and this approach does contrast with Chomsky’s Universal Grammar theory, which shapes and restricts foreign language. Cook (1996) discusses this:

*“ At the opposite pole from UG come models which see language in terms of dynamic processing and of communication rather than static knowledge”* (p.159).

She adds that cognitive processing models *“remind us then that language is also behaviour and skill”* (p.163). Foreign language skill is learned as patterns are

repeated over time. The Automatization model proposed by McLaughlin (1987, 1990) compliments this. He builds on his earlier work, the 'Information Processing' model, in which "*second language learning is viewed as the acquisition of a complex cognitive skill*" (p.133). To produce language, cognition is actively involved and individuals improve their skill in a foreign language by performing aspects that require some processing and learning will improve as a result of the "*gradual integration of subskills as controlled processes initially predominate and then become automatic*" (p.139). He claims that 'Automatization' is information processing, moving from controlled knowledge within the short-term memory and gradually becoming automatic, resulting in the constant restructuring of language knowledge and skill. This restructuring can destabilise language structure and result in foreign language learner errors, which could also account for learner differences.

The fact that the age of the learner may affect language learning (the so-called "critical period") is noted by Ellis (1990) who refers to the claims made by Selinker and Lamondella (1978) that it may be neurolinguistically impossible for all learners to acquire full competence in a foreign language. The Critical Period Hypothesis associated with Lenneberg (1967) considers the effect of age on learning and claims that the ability to learn another language tails off after a point during teenage years. The reasons given include loss of brain plasticity and the development of brain function specialisation in one hemisphere at the formal operational thinking stage. HD Brown (1994) posits that left and right brain dominance is an important issue in developing a theory of foreign language

acquisition. He links this to teaching methodology and cautions the teacher to be aware of over- use of methods which over or under stimulate brain hemispheres. According to Cook (1996), the suggestion that cognitive maturity could influence foreign language learning is of interest to foreign language researchers. According to Krashen (1979) adult foreign language learners proceed through the early stages of syntax and morphology faster than children. Larsen- Freeman and Long (1991) reveal that younger learners are better however in the most crucial area, that is, in the “*ultimate attainment*” (p.155), whereas the older, cognitively more mature learner is likely to acquire language at a faster rate. The effect of age on cognition is beyond the scope of this thesis.

### **Foreign language learning theory: a cognitive approach**

Bialystok (1990) is one of the most well known cognitive psychologists, who published a general cognitive theory that addresses how a foreign language is organised and processed by the learner, based on accumulated knowledge of foreign language learning. She states that foreign language learners require knowledge of grammatical rules for competence to develop (declarative knowledge) and practice to develop control processes (procedural knowledge). She subdivides declarative knowledge into conscious and unconscious parts and this is applied to the aspects of language learning, which require procedural learning and automatization. Knowledge that is retrieved quickly and easily is automatic. Foreign language progress is gradual and depends on having the required degree of analysis. Difficult tasks require more cognitive control in order

to analyse linguistic information and task difficulty depends on learner proficiency.

*“Analysis of knowledge is the process of structuring mental representations of language which are organised at the level of meaning (knowledge of the world) into explicit representations of structure organised at the level of symbols (forms)” (p.118).*

She states that proficiency in a foreign language incorporates both analysis, a level of knowledge about language including speech, form, syntax and meaning, which helps to make language available to the learner and at the same time by ‘automaticity’. This is evidenced by easy access to this knowledge and improved fluency. As learning takes place, awareness or control over linguistic knowledge increases and the learner is able to recognise structure. Bialystok (1990) concludes that analysis and automaticity are two dimensions to foreign language learning that are independent of each other. Some learners will concentrate more on one and less on the other, depending on the learning setting and their personal motivation. Cook (1996) describes cognitive deficit as the result of cognitive processes being suppressed in foreign language learning due to the load on short term memory processing and that as a consequence, cognitive capacity in the foreign language falls below that in the first language. In particular, reading and memory for sounds (for accurate pronunciation) are affected.

Ellis (1988) calls for a more comprehensive explanation of how learners develop their ability and use knowledge in linguistic tasks within a Proficiency Theory and an explanation of how they acquire foreign language rules, within a Competence

Theory. He refers to individual learning style and comments that not all learners benefit from instruction. Only positively motivated learners, tolerant of ambiguity, and active participants or listeners (in the silent stage of learning) will be open to learning. Learners who focus on communication will not thrive in a classroom environment which emphasizes grammar and correctness as the expense of free expression. Other learners may become anxious in a classroom, where all are expected to participate. Ellis (op.cit.) has introduced further considerations, namely the setting for foreign language learning and the range of associated behaviours which combine with cognitive and linguistic ability to produce variations in competence and performance. O' Malley and Chamot (1991) comment that:

*“what is perceived as easy or difficult could vary between learners, and might depend on factors such as age, context of learning, learning style, affective considerations, prior declarative and procedural knowledge, and ability to deploy effective learning strategies” ( p. 81)*

They debate how learners approach their learning and the kinds of cognitive processing involved. They add that this approach has not traditionally informed thinking in connection with foreign language acquisition theory because linguistic theory assumes language learning is separate from cognition. Wong Fillmore (1985) states that learning strategies influence the rate and level of foreign language acquisition in children as a direct result of the use of cognitive processing. Strategies include social knowledge, memory, inferential and analytical skills. McLaughlin, Rossman and McLeod (1983) also suggest cognition is central to foreign language acquisition, with motivation as an additional important element. The degree of cognition involved depends on the demands of



the task and the linguistic knowledge and processing capabilities of the language learner. Spolsky (1989) has proposed a general model of foreign language acquisition learning based on Preference Rules. In his view, necessary conditions are required for language learning, such as motivation, target language input and opportunities to use language. Gradient conditions are the variations in learners who may actively seek opportunities to interact (to a lesser or greater degree) and may then fine tune using learning strategies. A final type of conditions: typicality conditions, include the variations within learners which assist learning such as risk taking or personality, which can affect pupil behaviour and subsequent performance. These interacting conditions suggest that individual characteristics of learner behaviour may assist or inhibit learning within a classroom setting. O'Malley and Chamot (1990) comment

*“Thus, this model accounts for variability in second language learning outcomes through differing degrees of (or preferences for) application of gradient and typicality conditions” (p.12).*

They point out that the manner in which cognitive processing plays a part in language tasks has not been fully explored. They discuss learning strategies with the intention of providing a mechanism for describing how to improve foreign language learning ability by teaching learner strategies. They provide a critique of the work of Anderson (1983) and Gagne (1985) from the fields of cognitive psychology and computer sciences, and define three main types of learner strategies: metacognitive (involving planing and thinking about learning), cognitive (conscious, practical ways of enhancing learning such as note taking) and social (learning thorough interaction with others). They note that cognitive

strategies account for the majority although this does depend on what the task was that learners were engaged in and that the use of strategies varying according to learner ability. An expected outcome of their research was to provide a detailed taxonomy of learner strategies to encourage and facilitate strategy training in foreign language classrooms. They admitted that they had little information about the effects of extended strategy training. However, the National Curriculum for Modern Foreign Languages (1985) requires that pupils cover a range of skills and understanding and these can be directly related to learner strategies.

### **The Multi-dimensional model**

A developmental cognitive model that does provides a link between learning and teaching is the Multi-dimensional model, generated by Pienemann (1984,1988), based on work directed by Meisel et al (1981). The ZISA project (Zweitspracherwerb Italienischer Spanischer und Portugiesischer Arbeiter) focused on the developmental stages of processing complexity and describes broad sequences in foreign language learning based on the learner's accumulation of rules from word order data. The learner starts with the simplest structure: firstly individual words or formulas such as "What is your name?" The learner knows the words but not the grammar at this stage. They progress through developmental stages, learning the typical word order of the language, to concentrating on moving words around in the sentence. 'Learnability' is dependent on the learner strategies previously available and Pienemann (1984) predicts that 'teachability' is constrained by the staged development of the learner. Attempting to teach beyond

this is futile if the learner is not psycho-linguistically ready. The model is defined as “multi-dimensional” in that it recognises individual variation operating within processing constraints. Some learners master all the features of a particular stage and some only a few. Larsen Freeman and Long (1991) clarify:

*“A learner’s orientation may vary over time, and is independent of developmental stage, some more advanced learners (with proficiency being defined developmentally), whether naturalistic or instructed, being less accurate, less norm-orientated, than some less advanced learners”* (p.280).

The model recognises two dimensions in foreign language learning: development (progression through stages) and individual variation. Some learners may favour accuracy over communication and vice versa. This is useful work, according to Larsen Freeman and Long because it can be generalised to other foreign languages with other sequences and has implications for foreign language teachers who need to be aware of the learner’s developmental level and not teach beyond it. This is the similar to the concept of scaffolding pupils within their zone of proximal development, theorised by Vygotsky (1962, 1978), which is discussed on p. 140. Pienemann (1988) applies this to classroom teaching and his hypotheses suggest that if teachers were informed about learner orientation and their developmental stage then they could teach their learners more strategically by predicting learner errors and consider their syllabus design. Larsen Freeman and Long point out that this research is significant because it has shifted interest away from error analysis *“how far learners were from the finishing line”* (p.283), to an investigation of the learning process and how learners acquire a foreign language. The other strength of the model is its inclusion of a range of social and psychological variables,

which interact with cognitive processing and may be testable within a linguistic performance framework. The model may acknowledge the complexity of foreign language learning and research but does not provide all the answers:

*“ the Model may turn out to be quite revealing about constraints on acquisition, among other things, without saying much about how learners actually learn whatever they do, constrained as they are” (p.285).*

Larsen Freeman and Long consider that other aspects of the model suffer from a lack of clarity and gaps and yet can conclude that further empirical work could clarify and provide more specific information. They describe the model as having predictive power, particularly for teachers who could use developmental stages in foreign language learning as a diagnostic tool. They also state that foreign language acquisition theory is still developing and that current research can utilise the direction a good theory may be suggesting.

The trend in foreign language learning research seems to be one of increasing recognition of the approaches from the field of linguistics and from cognitive psychology. This establishes a broader theoretical explanation for foreign language learner variation and the need for a multi-disciplinary approach to individual differences, building on well established foundations, yet remaining open to restructuring and acknowledging the need for robust enquiry. A large body of research into the role of cognition in foreign language learning demonstrates continued interest in this learner characteristic. The major theories and models will provide a framework for study within this thesis. Foreign language research recognises the role of other learner characteristics and these will now be examined.

## **Affective considerations**

The work of Gardner (1985) addresses the role of motivation and aptitude and is thus a model, which incorporates individual learner differences as an explanation of foreign language learner variability. Gardner identifies the critical factors as learner attitude towards the target language and its community, and whether the learner and their parents value foreign language learning in a classroom setting. Motivation and aptitude should lead to success in the foreign language and this success bolsters motivation. Gardner (1993) defines this learner characteristic as:

*“desire to achieve a goal, effort extended in this direction, and satisfaction with the task” ( p. 2).*

This suggests a complex variable, incorporating more than one component, namely short and long term drives which may cause the other. Skehan (1989) discusses the motivation-as-cause interpretation of the role of motivation in individual learner differences and stresses the importance of assessing the impact of the different components of motivation.

## **Learner Attitude: Acculturation Model**

Schumann (1978) proposed this model to explain that learner performance is based upon the relationship between the learner and his or her attitude to the target language and group of native speakers. If the learner regards the target language as inferior then it will not be learned well. Schumann (1986) adds that elite bilingualism exists within some societies and some individuals may gain status

from having some knowledge of a foreign language. Schumann attempts to explain why some learners fail to learn a foreign language fully depending on their social distance from the target language. *"The degree to which a learner acculturates to the TL (target language) group will control the degree to which he acquires the second language"* (p. 384). He refers to factors including the size, type and behaviour of a social group living within the speech community, which are said to exert an influence on the level of acquisition. Social distance is defined as a group phenomenon and psychological distance works at an individual level. Schumann (1978) adds that the latter comes into play when the learner is not negatively situated towards SLA (second language acquisition). In other words they are open to learning. Schumann's model is criticised on several counts because he studied groups who were not monolingual. Cook (1991) judges that international or world languages do not fit this model. HD Brown (1994) says claims made by Schumann are untestable and the measurement of variables is overlooked according to Oller (1981). However, there are some critics, notably Larsen Freeman and Long (1991), who concede that although there are numerous methodological problems in undertaking research into psychological factors because every individual varies and social and psychological distance changes over time, nevertheless the Acculturation Model may explain why some school learners never fully learn the foreign language. They do not want to integrate into the target culture and do not expect to visit the country and be placed in settings where they will not feel confident because they can not communicate competently. Larsen Freeman and Long acknowledge that the model may be successful in predicting learner group success in acculturation rather than foreign language

learning. Learner attitude may contribute somehow to foreign language learning and individual learner success.

### **Foreign language learning is developmental: Vygotskyian theory**

One socio-cultural learning theory currently generating interest amongst foreign language researchers is that provided by the work of Vygotsky (1962, 1978), a theorist and researcher of child development. His theory of the 'zone of proximal development' supports the recommendations made by Pienemann (1988), that teachers need to be aware of their pupils' development level and provide appropriately matched support. Vygotsky (1978) defines the zone of proximal development as:

*"the difference between the child's developmental level as determined by independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers"* (p. 85).

He points to a relationship between language and learning. Language is mastered first with adult or peer support for communication and is modified by adults to match the child's level of development. The child learns how to control the language they have learned by practising 'inner speech'. Frawley and Lantoff (1985) discuss this phenomenon in connection with foreign language pupils undertaking a narrative task. The learners not only provided the narrative to a set of pictures but also made metacomments, which the researchers interpret as the need to *"impose order on the task by speaking and identifying the task"* (p.26).

The learners were articulating their attempts to take control of the task by incorporating their understanding of what the task demands are within their language output. McCafferty (1994) asserts that there is a relationship between the amount of self-regulating speech, which supports the learner and their level of proficiency in the language and the overall task difficulty. He comments that there is very little known about the nature of this private or inner speech and he adds that:

*“ a Vygotskyian view of private speech affords a valuable window onto the intra-personal processes in which adult L2 learners engage in their efforts to self-regulate in the face of the very complex process of learning a second language” (p.434)*

A process of support, which can prompts learners through the stages involved in working out a task, is referred to as ‘scaffolding’. The level of this depends on the learner’s “zone of proximal development”, from which the learner may not be sufficiently competent to progress to the next stage without teacher or parent input. The amount of support would vary between learners and as progress is made and skill level rises, the ability to work more independently should follow. Bruner (1985) comments that the teacher: *“limits the complexity of the task to the level that the child can just manage”* (p.94) by providing structure, which maintains pupil interest, explaining the task and leading the child on. Support can be removed as the internal (cognitive) structure is strengthened. Continuing with the driving instruction analogy, the learner initially requires scaffolding from an instructor who will teach how to carry out a more complex task using auditory prompts namely, Mirror, Mirror, Signal, Manoeuvre which may serve as inner



speech for the learner until the skill becomes automatic and the driver instinctively makes decisions about how and when to take action.

Vygotsky distinguishes between conscious and unconscious learning. Learning a foreign language is a conscious process, relying on skills and application from first language acquisition, language awareness and attitude. The familiar is renamed and not relearned. The emphasis on communication with others is emphasised by Ellis (2000) "*learning arises not through interaction but in interaction*" (p.209) and this reinforces the social nature of foreign language learning.

Vygotskyian ideas of private speech and the role of scaffolding in learning are being applied to foreign language learning. Language is the tool for thought and is not simply a means of conveying messages back and forth. Foreign language learning is seen as social, (through collaborative activity), then individual, first inter-mental then intra-mental. Appel and Lantolf (1994) claim that "*performance depends crucially on the interaction of individual and task*" (p.208) rather than on the properties of the task. Frawley and Lantolf (1985) conducted some of the first research into foreign language learning applying Vygotskyian theory and concluded that learners 'self-regulated' during speech. McCafferty (1994) explored the use of private (inner) speech to regulate performance, and found there was a relationship between its use and the degree of task difficulty. He believes that:

*"a Vygotskian view of private speech affords a valuable window onto the intra-personal processes in which adult L2 learners engage in their efforts*

*to self-regulate in the face of the very complex process of learning a second language” (p.434).*

Mitchell and Myles (op.cit.) comment that there has been little research into the use of inner speech by classroom learners to establish to what extent they ‘self-regulate’ in preparation for communication. Ellis (2000) also points out there have been only a few studies examining task design and communicative effectiveness which is determined by learner characteristics such as cognitive style and personality. Platt and Brooks (1994) refer to foreign language learners using both the first and the foreign language privately and collaboratively to solve problems and complete tasks and call for more research to explore how learning arises out of performance.

The outcome of their research presents a view that learner strategies (inner speech and scaffolding) demonstrate cognitive activity within a socio-cultural perspective of foreign language learning. Mitchell and Myles (1998) stress that the Vygotskian approach is a relative newcomer to the field of foreign language learning research and it does not address all the issues, for example the rate and route of learning and the impact of scaffolding within the zone of proximal development. An interesting observation made about the latter is that one outcome of skilful scaffolding could be that foreign language skills develop quicker. This may provide a further explanation for individual differences in foreign language learning. Vygotskian theory is now focusing on the foreign language learner in a formal learning setting rather more than in a natural acquisition setting. Its application to the classroom may provide foreign language teachers with a

framework for planning for individual needs.

### **Applying foreign language learning theory to a classroom setting**

Instructed second language learning is discussed by Larsen Freeman and Long (1991) who refer to Wode (1981), who claimed that the similarities in developmental structures and sequences across acquisition groups reflected the universal processing abilities and innate language learning skills. Ellis (1988) describes Universal Grammar as the “built in syllabus” for foreign language development and points out that this can take place very rapidly and the learning style of the individual may change as individual variability emerges. He refers to the work of Hatch (1978) who confirms that classroom foreign language learning (the discourse model) is governed by the nature of the teacher input and therefore the more frequent use of certain grammar forms. Input is restricted and a different order of development is the result. Ellis states that correlation studies can shed no light as to whether the process of development is affected by the environment. Krashen (1989) debates whether formal instruction has a part to play in foreign language development and Ellis (1990) is primarily interested in whether this development (in a classroom setting) is actually a distinctly different process. Research carried out by Ellis and Lightbown (1983) generally points to a pattern of learning which relies on natural processing which is not significantly affected by the setting or linguistic environment. What does differ may be the sensitivity to language form due to instruction. Learners rely on teacher input rather than ‘picking up’ the language in a natural setting. A social distance effect might be

noted when some learners do not actively seek input. Alternatively, Ellis explores the learner strategy of reducing communication to a minimum for creative speech, referred to as semantic simplification. Krashen (1989) relates this to the pressure put on learners to communicate in the classroom and thus miss out the 'silent period' when listening is going on in a naturalistic setting.

Formulaic speech may also compensate for natural, creative speech normally enriched by a more detailed knowledge of the target language. It acts as a learned script and aids communication because it does not take time mentally processing the grammatical rules needed to produce a response. Sternberg (1982) comments that good foreign language speakers can communicate without consciously applying all the related rules because:

*"Gifted individuals can automatise information processing unusually efficiently and effectively" (p.233).*

It is possible that more able linguists can more rapidly recall formulaic speech patterns, learned in the classroom, when they perceive that it is grammatically and strategically appropriate. They possess grammatical and cultural sensitivity in a naturalistic setting and so their target is to communicate as naturally as they are able, bringing all their linguistic and social skills into play.

Ellis (1990) reframes classroom based foreign language development and claims that it can take place depending on psycho-sociological factors, which influence pupil attitude and motivation. He says that the reason why it does not lead to an ability to communicate spontaneously in the target language is due to the

classroom conditions, which do not foster communicative (creative) speech. This is an issue for teachers to address if they are to endeavour to counteract the 'unnaturalness' of the setting. Quality and quantity of speech in the classroom is important and the foreign language learner must perceive a need to communicate, and use language creatively to express meaning rather than simply to respond to teacher input. This may be challenging for teachers in a classroom, and Ellis (1990) comments that the 'Feedback' move in IRF (Initiation, Response and Feedback) exchanges, is used to keep the teacher's meanings "in play" rather than to develop those of the pupil. Comprehensible input is the key and interaction theorists including Long (1985, 1996) are interested in how input is made comprehensible. Interactional modifications in a conversation between the native speaker or the teacher and the foreign language learner cause the input to become comprehensible and therefore interaction assists learning. Lightbown and Spada (op.cit.) point out that there is no direct evidence that comprehensible input causes or explains foreign language learning. However, the interaction model does seem remarkably similar to Vygotsky's 'scaffolding'

Ellis refers to Spolsky (1988) who states that a foreign language acquisition theory should take into account the following: the knowledge and skills of the learner at a given time, ability components, cognitive style and affective factors such as motivation and personality. This demonstrates there is a value in examining individual variables if foreign language learning appears to be so dependent on them. A classroom based foreign language theory could rest on how each of these variables reacts with each other. Ellis (1990) states that an integrated theory that is,

linguistic and cognitive is highly controversial. Johnson (2001) believes that 'The Learning Pathway', involving declarative knowledge (knowledge about) and procedural knowledge (knowledge how to) could describe both language acquisition and language learning in one framework.

## Summary

Table 2.1 (pp.75-6) presents the foreign language learning theories and models and general learning theories that are linked with foreign language teaching and learning. Cook (1996) refers to these:

*"Each of these models of learning accounts persuasively for what it considers the crucial aspects of second language learning; some, such as the acculturation model, are already looking a bit old-fashioned, others such as connectionism, have hardly been tried out. What is wrong with them is not their claims about their own front yard, so much as their tendency to claim the whole street belongs to them. Each of them is at best a piece of the jigsaw" (p. 170).*

She seems to be suggesting that perhaps the jigsaw has to be assembled before the whole picture will become clear. A framework for assembling the pieces does not exist and some pieces (connectionism) have to be tried and tested and others (acculturation) belong to an older version of the jigsaw, which has had to be re-named and re-issued.

This chapter illustrates the diversity of approaches to foreign language learning

theory. Larsen-Freeman and Long (1991) distinguish between theory then research and the research then theory and provide a discussion of the effects of formal instruction on foreign language learning. They point out:

*“the study of SLA (second language acquisition) is fascinating in its own right. It is a true conundrum. Understanding it requires drawing upon knowledge of psychology, linguistics, sociology, anthropology, psycholinguistics, sociolinguistics and neurolinguistics, among others”*  
(p.2).

They link the intellectual challenge of studying foreign language acquisition with the importance of informing the classroom practice and teaching methods of language teachers. Moreover they acknowledge the effect of learner variables on the process of learning. Whilst the rate and depth of learning vary between learners the system of learning employed does not. The part cognition plays is significant and other factors are contributors. A more detailed examination of some of these characteristics and of the associated research will take place in the next chapter in order to help establish what nature of relationship exists between foreign language performance and individual learner differences. The intention of this research is ultimately to focus upon the levels of individual learner characteristics and their association with effective foreign language learning. Generic skills and specific aptitudes, which may contribute are identified as individual learner characteristics, and the literature review has identified that these include: age, language aptitude, motivation, attitude, cognitive ability, learner strategies and memory.

**TABLE 2.1: A SUMMARY OF LANGUAGE LEARNING THEORIES**

<b>THEORY</b>		<b>DESCRIPTOR</b>
<b><u>Neuro-functional</u></b>	Lamendella 1979	Neuro-linguistic information processing systems are responsible for the development and use of language.
Critical period hypothesis	Lenneberg 1967	Related to age of learner, loss of brain plasticity and hemisphere specialisation leads to tailing off in language learning
<b><u>Socio-educational</u></b>	Gardner 1985	Role of <b>motivation and attitude</b> in learning language. Looks at attitude to target language and culture. Integration and attitude lead to motivation, plus <b>aptitude</b> leads to success. Looks at how society regards foreign language learning.
Acculturation	Schumann 1978 Brown 1980	Relationship between foreign language learners and target language speakers. If the former think they are superior/inferior they won't learn language as well. Psychological factors ie. language and culture shock, <b>motivation</b> and ego boundaries.
Nativization	Anderson 1983	Social/psychological distance. Makes input conform to own view of foreign language system based on first language knowledge.
Interlanguage theory	Corder 1967 Selinker 1972	The learner's internal processing mechanisms lead to particular types of output.
<b><u>General learning</u></b> Socio-cultural	Vygotsky 1962,1978	Socio-cultural theory- learner has zone of proximal development, can work beyond with scaffolding (support)
<b><u>Cognitive</u></b> Adaptive Control of Thought	Anderson 1983,1985	Procedural <b>memory</b> (procedures) and declarative memory (knowledge) ie facts get better known and turn into procedures
Automaticity/Restructuring	McLaughlin 1987	Language is learned by the same principles of general learning. Practice builds up weightings and response strengths on a continuum from lower to higher skills. Processing information from controlled – automatic, to an accumulation of a preferred way (restructuring-focal or peripheral attention).
Analysis/Automaticity	Bialystok 1990	Knowledge makes up competence. Learning requires knowledge of rules and



Competence/control	Bialysok/Sharwood Smith 1985	needs practice to develop control processes. Reference to variability, external and internal processes.
CALP	Cummins 1980	Cognitive Academic Language Proficiency. Superior cognitive ability in the first language enables learner to be effective in foreign language.
<b><u>Linguistic</u></b> Universal grammar	Chomsky 1976	Rules, properties and conditions are present in all languages. Available only via first language. Foreign language learners don't tap directly into UG but use knowledge of it. Emphasis on vocabulary learning, sets minimal store by practice.
Monitor model	Krashen 1981b 82	Natural order – rules of language. Language acquisition through meaningful interaction in a natural setting. Input Hypothesis – comprehensible input received by listening and reading. Monitor use (editing). Speaking is a result of acquisition Affective filter – state of mind. Learner <b>attitude</b> to foreign language can alter <b>motivation</b> . Success affects motivation, which lowers the filter.
Comprehensible Output	Swain 1985	“Pushing language out” forces learner to try out grammar and hypotheses. Language use.
Multi-dimensional model	Pienemann et al	Staged development and individual variations.
Good language learner model (see ch.4)	Naiman, Frohlich, Todesco, Stern 1978	Successful language learners differ from less successful according to learner strategies they use. Interactions between variables based on data collection.
Interactionist view	Long 1985 Carroll 1965	Instructional factors and individual differences ie. nature between variables eg. Time and instructional excellence, intelligence, <b>aptitude</b> , <b>motivation</b> <b>Aptitude</b> , ie associative memory, inductive language learning ability, grammatical sensitivity, phonemic coding ability
Variable competence	Ellis 1984	Learner's competence is a variable one, consists of knowledge of rules and ability to use this in different ways by means of various strategies. Classroom second language development.

A more in-depth examination of the literature from the gifted education field is now provided. The purpose is to contemplate the definitions, theories and models, which attempt to identify the learner characteristics associated with the notion of 'giftedness' and as a result will facilitate an exploration of how and why successful foreign language learners differ from the less successful learner. If the more successful language learner is a more effective, creative individual and thus gifted in this field, it will be useful to firstly consider the various definitions of giftedness, which may incorporate the specific or general skills and aptitudes that could favour successful (gifted) foreign language learning. A high level performance as a foreign language user may be associated with a high level in intelligence or memory or motivation. Some of the more influential theories and models of giftedness will be introduced with an additional focus on the characteristic of creativity. Creativity in foreign language learning can be interpreted as the ability of a foreign language learner to make the foreign language his or her own. Spontaneous responses to written text, transactional dialogue and original prose or poetry are examples of how a successful, talented language learner can reveal a unique creative talent. Creativity is defined as a product or outcome, and secondly as a more fixed learner characteristic of gifted behaviour. A high level of specific learner characteristics may indicate that a learner has the capability to be creative. In the context of this research, creativity is defined as prospective or potential talent. It will be necessary firstly to conceive a foreign language creativity task, which enables pupils to verbally express original ideas productively, and furthermore to assess their creative performance in the light of their individual differences using markers such as cognitive ability in order

to establish whether it may be feasible to assume that cognitive ability is a predictor of gifted production (creativity) in foreign language learners.

### **Defining giftedness**

Porter (1999) reflects on the diversity of definitions and points out that there is a lack of clarity. Although the notion of giftedness appears to be universal, its definition and a method of identification are actually more complex because differing ideologies and assumptions give rise to diversity and controversy in definition and consequently in assessment. Sternberg and Davidson (1986) comment:

*“Giftedness is something we invent, not something we discover: it is what one society or another want it to be” (p.3).*

They suggest that giftedness is not a fixed construct but is somewhat arbitrary, dependent on political and psychological norms and how a society chooses where to demarcate between the average and the above average. The measurement and assessment of giftedness and creativity is a vital strand in the education of the gifted, which aims to convert potential into achievement and to stimulate increased performance from learners. Gagne (1995) advises that giftedness is *“defined too loosely while being measured too restrictively”* (p.104). High intelligence estimates of giftedness restrict the number of people regarded as gifted to the top five per cent on an ability measure. Renzulli (1982) concludes that a more liberal estimate includes up to fifteen to twenty per cent of the population.

A single exceptional talent could be an indicator of giftedness although Porter (op.

cit) notes that other definitions “*include achievements in a number of domains*” (p.14). Some definitions require evidence of performance, a creative output, as indicators of giftedness, whilst some assessment of learners can identify children who have potential, yet are underachieving, thereby not presenting a product of their latent talent.

Eysenck and Barrett (1993) comment that giftedness nearly always involves high IQ, although other factors are acknowledged. Giftedness is a term used synonymously with labels such as ‘high intelligence’ or ‘aptitude or talent’ to describe specific pupil behaviour. Intelligence is thought to be an immutable constant that is distributed normally throughout a population. Heller (1992) provides a working definition:

*“Giftedness is thus defined as the individual cognitive and motivational potential for – as well as social and cultural conditions of – achieving excellent performance in one or more area such as in mathematics, languages, or artistic areas with regard to difficult theoretical vs practical tasks”* (p.49).

This broad definition, which presents giftedness as a range of cognitive and affective behaviours, enables research to be conducted for this thesis. The aim of my research is to determine the profile of learner characteristics, which support foreign language learning. A combination of these may need to be present in the more successful language learner who consequently may be described as gifted, and the presence of certain characteristics in some learners may indicate or predict future gifted performance.

A second definition includes 'creativity', measured usually by divergent tests such as unusual word associations. Creativity can be interpreted as both a trait and a product according to Eysenck (1993) who expresses the view that high intelligence, persistence and motivation are needed to create an original piece of work. Chomsky (1976) comments further on this characteristic:

*"Creativity is predicated on a system of rule and forms, in part determined by intrinsic human capacities. Without such constraints, we have arbitrary and random behaviour, not creative acts"* (p.133).

The characteristic would vary between individuals and thus some would appear to possess more or less than the average. When skills and abilities are significantly advanced we would describe individuals as gifted. Within the context of this research, giftedness in foreign language learners may mean the possession of many or some distinct skills or be advanced ability at utilising the general skills everybody possesses.

Pupils are described as 'bright' depending on their stage of cognitive development evidenced by early 'formal operations' cognition. Piaget (1950, 1970) has structuralised human thought into stages of cognitive development and the operational changes that bring these about. Development occurs in a sequence of stages which, when reached, permit the child to perform a higher level of cognitive operation. He adds that it is necessary to connect development with school instruction. His theory rests on the belief that cognitive development is 'internal' and the learner interacts with others. In contrast, Vygotsky (1962) believes that cognitive development is social, determined by culture, that is, by the environment

outside the learner. He stresses the important role of language, which is the tool, enabling learners to direct attention, plan, and articulate goals including the steps taken in problem solving. New concepts are learned through social interaction and the individual appropriates this into internal knowledge or skill learning. Learning is both individual and collaborative and Monks and Mason (op.cit.) speculate that the Piagetian model should be modified to take account of social and personality aspects and comment:

*“The biological concept of adaptation introduced by Piaget has to be extended to emphasise the more active role of the individual. Sociologists use the term emancipation, to mean self-actualisation, becoming an independent person, and detachment from inappropriate bondings (p. 91)*

The work of Vygotsky (1962, 1978) and Piaget (1950, 1970) provide models of development, which can explain general learning and the function of language. They theorise a process of learning but do not say a great deal about individual variations in speed or depth of learning, which may be indicators of gifted performance. Mitchell and Myles (op.cit.) point out that researchers have not addressed the language phenomena, which could shed light on individual differences in foreign language learning.

### **Assessing giftedness in schools**

What is imperative then, is that the mechanisms for assessing giftedness and creativity are broad based and consistent. The outcome of assessment is information about a child's current achievement and their ability to perform in the

future. This reflects the performance versus potential debate regarding definition (p.78). This data is usually comparative to give an indication of how each child compares with others of the same age. All school children in England and Wales are formally tested at age seven, eleven and fourteen, using National Curriculum levels of achievement as performance indicators. This is standard procedure and levels gained at the age of eleven may point to higher than average ability in key areas of the curriculum, notably English, Maths and Science. Diagnostic assessment is actively encouraged to inform curriculum planning. Norm-referenced tests can give an indication of the pupils who are ahead of the norm and in the top three to five per cent of their age group. The use of intelligence tests persists in schools in spite of their non-specificity to particular domains. Their strength lies in their value in identifying children who may require additional support. Some pupils may be recommended as gifted by their teachers using checklists of characteristic 'gifted behaviours' and performance capabilities may have alerted parents or teachers to individual strengths. Porter (1999) is critical because

*"they do not ask children to apply, extend, analyse, synthesise or evaluate information in creative ways but simply to generate superficially correct responses on cue" (p. 97).*

These high-order skills are more difficult to assess, yet are the very skills required for creative thinking. It would seem that there is a place in schools for IQ testing, yet they should not be the only assessment mechanism for gifted pupils. Jackson and Butterfield (1986) refer to high intelligence viewed as a gift, but not the only one. Shore and Kanevsky (1993) refer to Vygotsky and note that learners do better

in environments where they do not know all the answers. They conclude that this should remind teachers to provide more interesting lessons and projects in school, which can encourage and support independent thinking.

Creativity is one characteristic that researchers regard as overlooked by intelligence tests, which are more interested in the product, the end result, than the processes utilised by the learner to complete the test component. Khatena (2000) in his review of creative thinking, states that there are four creative thinking abilities that can be tested: *“fluency, flexibility, originality and elaboration, the four creative thinking abilities that have major importance”* (p.33) based upon measures constructed by Guilford (1967) and Torrance (1981). These do not lead to a single index, which could be called a creativity quotient like IQ, because they are separate dimensions of creative thinking.

Specific skill areas or aptitudes can be identified early and affective behaviours such as motivation, a fundamental aspect of giftedness, according to Renzulli (1986), should be monitored. Heller (1993) backs up this view that a combination of intelligence and creativity predictors lead to a better prognosis of outstanding achievement. His criticism is that as yet there is still no clear explanation as to how the giftedness came to be there. There are psychometric definitions of giftedness and research from the field of cognitive psychology has explored the cognitive processes involved. A logical outcome of this would be to use a combined approach to the assessment of giftedness, using valid and reliable (psychometric) test instruments for cognitive ability and test mechanisms, which



can identify individual (gifted) pupils with the required psychological and social attributes for optimum learning.

The opening debate about the definition of giftedness demonstrates the belief that intelligence is believed to be an internal, fixed characteristic, testable and capable of producing results that give an indication of future potential. How this is addressed in schools is complicated by the variety of definitions. Porter (1999) comments on the criticisms of the 'high intelligence equals gifted' definition:

*"Most criticisms arise from its uni-dimensional view that giftedness and high intelligence (or even a high IQ) are one and the same thing. This leads to another oversimplification- namely, that all children with similar IQs are alike"* (p. 17).

The perspective that views high intelligence as a gift that not all the gifted may possess does lend support to the need to revise diagnostic assessment systems if they only identify some but not all. If the notion of giftedness requires a broad definition to encapsulate all domains and behaviours then the use of psychometric tests, which relate to academic intelligence and do not incorporate other talents from other fields including: creativity should be reviewed. The skill areas they do test, including verbal and non-verbal ability and quantitative reasoning are indicators of areas of strength and weakness and are not specific enough to ensure that all aspects of gifted behaviour, including creativity and all aptitudes and talents are catered for.

The intention of this research is to identify and focus on the learner characteristics,

which contribute to effective foreign language learning, including individual learner levels of cognitive ability, which may be considered an indicator of potential giftedness. The discussion that now follows aims to highlight further individual characteristics generally recognised as indicators of giftedness. This more specific focus may provide a more concrete route for carrying out a literature review and research in this field. The research perspective and a methodology appropriate for research into individual learner characteristics will be described and accounted for in a subsequent chapter.

### **Individual learner characteristics associated with giftedness**

Early research undertaken by Anderson and Cropley (1966) investigated non-intellectual variables and they suggest that the creative individual takes risks, not on impulse but as a natural step towards original performance. 'Moral attitude' is how Barron (1963) describes a creative person's need to make sense of chaos and create order from it using their skills and abilities. Golan (1991) stresses that positive motivation is an integral personality factor necessary for creative productivity, enabling an individual to sustain their effort to produce or perform creatively. It is considered to be a characteristic of the gifted and a necessary spur for achievement. Gifted children's intrinsic motivation is more powerful than extrinsic rewards according to Amabile (1990), and Clark (1997). If a task is achievable, and the child has the skills and interest in it, then they will be motivated to attempt it. The 'expectancy component' relates to children not investing time and energy in tasks, which they do not expect success in.

Motivation is clearly of fundamental importance and is the driving force for the individual learner. Evidence to support this further is provided by Howe (1990), who refers to the pioneering work in 1947 of Terman who studied two groups of one hundred and fifty gifted individuals, the first of whom were highly successful and the second less successful. Although both groups were highly intelligent it was not their intellect that contributed to their success, but their level of motivation and self-confidence. The awareness of mastery over the environment is another factor contributing to exceptional ability in an individual Howe (1990) describes as:

*“someone who thinks that the possibility of a successful outcome depends upon his or her actions is likely to engage in appropriate study activities and persist with them ”* (p. 192).

This can be observed in secondary school classrooms by variations in task motivation according to the task stimulus, objectives and the learning environment. Pupils develop their positive or negative attitudes towards the value of school subjects for future careers. Different reactions to the same stimuli have implications for learning. Torrance (1975) concentrated his research on creative children and produced a list of characteristics which they possess which include being adventurous, testing limits, curious, emotionally aware, making guesses, good memories, sense of beauty, sense of humour, risk taking. These qualities may enable a gifted child to put their intelligence to good use.

An important step in understanding the origins of individual differences in ability is to investigate the extent to which individual differences or variations may be

contributing to performance. Firstly, genetic influences may be involved. This is a controversial issue and Howe (1990) discusses whether giftedness is a concrete entity that some people possess and others do not. He asserts that genetic difference might have some influence and may impose limits on performance in certain intellectual feats in the same way as in physical feats. Yet he clarifies that:

*“the idea that genetic factors severely limit the success of individuals is false” (p.88).*

He refers to language acquisition and the fact that virtually all humans are able to gain a language. Yet he continues that there is no evidence that some people are born with cognitive processing modules that others do not have. Individual differences may have consequences that affect people eventually acquiring exceptional abilities. Research into speed of processing, measuring neuro-physiological activity and the time taken for information to be processed is treated with caution according to Howe who is not convinced that the evidence provided is reliable. Perleth (1993) comments on memory capacity and durability and states that although gifted children’s memory performance is often better than that of the average child, this should not be interpreted as evidence that gifted children have a higher memory capacity or memory durability. The gifted may demonstrate more often a more highly organised memory with increased automaticity which contributes to more rapid information processing. Memory efficiency increases as cognitive processes become more automatic. It is this higher cognitive efficiency which is responsible for individual differences. Thompson and Plomin (1993) refer to research findings that suggest that cognitive ability shows a linear increase from infancy to early childhood and this continues to increase into adulthood as the

effects of shared environment appear to decrease.

*“Recent evidence suggests that shared environmental influence that affects IQ scores may be much less after adolescence” (p. 106).*

They refer to molecular genetics research in relation to high ability and assert that many genes make small contributions to variability. They conclude after undertaking group heritability assessment, using DF analysis (named after its developers DeFries and Fulker in 1985) that high ability is also strongly heritable. They call for more research into identifying DNA differences among individuals as a tool for providing more evidence about giftedness and talent. Cardon et al (1992) are reputed to have found strong evidence for verbal, spatial, perceptual speed and memory factors to be genetically determined, independent of general intelligence. However it is not DNA that determines giftedness, because it does not directly affect behaviour. Eysenck (1993) posits that there must be hormonal or psycho-physiological influences, which correlate with giftedness. Personality plays a part in giftedness and the whole area of the location and measurement of mental activity in the gifted is a field of research that is in its infancy.

Other studies of the gifted focus on their superior ability to retrieve information, to solve problems, and on their metacognitive skills namely, the mental tools to assist in learning, which according to Manning (1996), the gifted learn earlier. Cropley (1997) suggests that different skills and motivation are required for creative processing at different times and this may explain the lack of clarity if conflicting results emerge from research. Borland (1990) supports the view that is inevitable and is not a cause for concern because

*“giftedness should be defined differently in different settings, but in the manner that is logical and consistent with the realities that obtain in each of those settings” (p.166).*

Giftedness can be explained as developmental, dynamic and strategic within the individual and that it is innate or inherited. However, giftedness is also reliant on the environment, either the home or the school, valuing, identifying and nurturing the talent or gift and on the personality of the individual to manage their potential productively and effectively in order to achieve.

Research into the gifted performance describes accomplishments and learner behaviour. A literature review of the major theories and models associated with giftedness and the notion of creativity now follows. The purpose is to more fully investigate how talent is made. The theories and models identify and comment on the elements necessary for the gifted child to realise their potential and indicate the specific role these individual learner characteristics have in contributing to gifted behaviour and performance. The theories and models may not specifically refer to foreign language learning however it is anticipated that the individual learner characteristics they identify may have a significant impact within the context of foreign language learning and teaching. This will be examined in the next chapter.

### **Models of Intelligence**

An early theoretical model of the structure of intelligence, the Structure of Intellect model, was proposed by Guildford (1956, 1959) and has three dimensions:

operations, content and products, which he depicted as three faces of a cube. The Operations (five separate intellectual abilities) are classified into: cognition, memory, convergent thinking, divergent thinking and evaluation. These are applied to the four content areas: figural, symbolic, semantic and behavioural and produce six types of product: units, classes, relations, systems, transformations, implications. This yields one hundred and twenty separate functions. Khatena (1992) modifies this Structure of Intellect model from one hundred and twenty to one hundred and fifty functions, by dividing figural content into visual and auditory skills. This model, used in connection with the study of creativity, treats high intelligence (giftedness) as separate from creativity. Yet it is criticised, according to Porter (1999) for dividing intellect into so many functions, which correlate so highly with each other that a general ability factor would underpin them all.

Fuller descriptions of giftedness recognise the range of gifted abilities or talents. Multi-factor models of psychometric concepts of intelligence are based on the theory of multiple intelligences (Gardner 1985) and from the field of cognitive psychology (Sternberg 1985), that is, within his Triarchic intelligence model. Gagne (1991, 1995) distinguishes between giftedness and talent. Renzulli (1986) describes the personality characteristics enabling giftedness to develop in his Three Ring model and Feldhusen (1992) explores the combination of factors which can work towards fostering creativity in the Three Stage Enrichment model. Tannenbaum (1986, 1997) provides a psychosocial model, which considers the range of factors that must coincide in order for an individual's potential to be

realised.

## **Multiple Intelligences**

Gardner (1985) produced a model for giftedness called Multiple Intelligences, which incorporates domains that are socially and culturally valued. The seven intelligences include: the linguistic, musical, logical-mathematical, spatial, bodily-kinaesthetic, interpersonal and intrapersonal. Thus, intelligence is not a single entity and in Gardner's view each discrete intelligence is a system in its own right. Therefore each intelligence operates independently of others and an ability assessment of one does not indicate there would be a similar ability level in another. However, he also asserts that there is interaction between intelligences so that multi-skill tasks can be completed. He defines intelligence as "*an ability or set of abilities that permits an individual to solve problems or fashion products that are of consequence in a particular setting*" (1986, p.165) and proposes eight criteria for enabling each intelligence to be distinguished from the others. According to Sternberg (1993), Gardner is leading the field in 'authentic-testing', devising a mechanism for evaluating a child's gifts based on their production. The child must display their ability significantly and thus demonstrate that they can realise their potential.

Monks and Mason (1993) criticise the Multiple Intelligence model for its reliance on anecdotal findings rather than empirical results. However, Fisher (1996) does not share this view of Gardner and states his concepts are not just the intellectual



ruminations of an “armchair psychologist” but are based on clinical hard facts about the human brain and human abilities and Gardner based his theory on research. This includes the development of an early education programme called Project Spectrum within which teachers are able to assess gifted children in fifteen domains of knowledge. Methods are based on observing pupils’ problem solving behaviour and productive activities and are not reliant on Intelligence Quotient (IQ) test scores. Khatena (2000) judges that a model should include creativity as another dimension of intelligence, rather than as a separate learner characteristic.

### **Triarchic Intelligence model**

Sternberg (1997) asserts that in order for a person to be considered gifted they have to meet five criteria: excellence, rarity, productivity, demonstrability and, value. The individual needs to be extremely good at something ‘relative to peers’, and possess a ‘high level of attribute that is rare’. They must possess the potential for productive work in some domain. It is not enough to be labelled ‘gifted’ based solely on test scores. An individual has to demonstrate gifted behaviour, according to Sternberg (1990) and Gardner (1983). The demonstrability criterion states that the individual’s giftedness should stand up to assessment using valid and reliable tests. The value criterion restricts the identification to those who possess an attribute that is valued as relevant by the society or culture. If the work of an individual is not valued then it follows that the individual will not be viewed as gifted however productive they may be. In a political context, research or creative work may be undervalued or rejected and the individual face anonymity at the

least and persecution at the worst until their work is championed by another. International recognition or subsequent ideological and political change, may result in an acceptance and celebration of what was once out of favour. Gifted artists, scientists, musicians and writers who have not faltered when faced with adversity have demonstrated great strength, endurance and determination. These aspects of their character may have contributed directly to their gift and this suggests that some non-intellective qualities or behaviours may have a role in 'giftedness'.

The triarchic model theorised by Sternberg (1985) comments on the individual ability to take advantage of their gift and find or take opportunities to use it in a setting that is accommodating. The triarchic theory has three parts: the componential subtheory relates intelligence to the internal mechanisms which process information, the experiential subtheory relates to the level of experience with which the components are applied to tasks. The third subtheory, 'contextual' infers that intelligent thought is directed to selecting an environment, adapting to an environment, or shaping it. These so- called 'global goals' are directions that the purposeful function of intelligence takes. Sternberg (1985) concludes that intelligence is the ability to:

*"capitalize on strengths and to compensate for weaknesses" and*  
*"exceptional intelligence is not quite the same thing for different people"*  
(p. 236).

Monks and Mason (op.cit.) acknowledge that Sternberg makes a distinction between three types of giftedness: analytic, synthetic, and practical abilities. His

Triarchic Abilities Test is intended to be broader in scope and better than a single IQ test. He focuses on the intellectual processes required for learning new information and problem solving and comments that:

*“ an important part of giftedness lies in being able to co-ordinate these three aspects of abilities, and in knowing when to use each one” (p.44)*

This strategic competence is noted also by Davidson (1986), who defines giftedness as ‘insight’ ability. He found a clear discrimination between intellectually bright and average children using measures of performance on insight problems. This may be an observable difference in a classroom setting enabling some pupils to make more qualitatively and quantitatively decisions about how to tackle a task. Sternburg and Lubart (1993) develop this further and propose a model of creativity called the ‘Investment Theory’, which Khatena (2000) explains within an analogy related to economics or a stocks and shares context. That is, creative people buy and sell ideas. They invest in unfavourable ideas (buying low) and may initially encounter resistance but they persist with the idea, allowing it to grow and ‘selling high’. For this to take place, other factors and abilities are required including the ability to analyse and synthesise, knowledge and cognition, motivation and a supportive environment.

Gagne (1991) describes the factors that contribute to the translation or transference of gifted potential into creativity or talented performance. He supports the view that the focus for gifted education should move away from the emphasis on identifying the individual towards identifying and promoting gifted behaviour. In Heller, Monks, Passow (1993) he refers to five categories of definitions of

giftedness based on the work of Stanowski (1978): after the fact definitions based on adult performance, IQ scores , talent definitions, percentage definitions varying from twenty to three per cent, creativity definitions stressing original and productive accomplishments in a particular field. He also discusses the problems of value or worth in connection with some gifts or talents in society. Hollingsworth (1998) refers to the work of Gagne as a systems approach to the education of the gifted because he has presented a model, which combines both the features of giftedness and the forces that act upon them, in an organised non-random format.

### **Giftedness is natural ability**

Giftedness, according to Gagne (1995) is the untrained, natural ability in at least one ability domain whereas talent is the expression of developed skills and knowledge, related therefore, more to performance than to potential. Renzulli (1979) specifies three components of giftedness: above average ability, high task commitment and a high level of creativity. A child must be capable of developing an interaction between all three within an educationally enriching environment. The cluster of variables, known as the Renzulli 'Three Ring Conception' was criticised by Jarell and Borland (1990) who argued that the research they reviewed did not support the theory. Renzulli defended himself and reaffirmed that his intention is to identify and to nurture giftedness. Monks (1993) modified the framework of Renzulli's later work (Triadic Interdependence Model of Giftedness, 1986) to incorporate a personality and an environmental component. 'Task

commitment' is replaced with Motivation, which includes task commitment, risk taking, future time perspective, anticipation and planning. 'Above average ability' is replaced by high intellectual abilities from pupils ranked within the upper five to ten percent, rather than the upper fifteen to twenty-five per cent, as had been suggested by Renzulli. Monks (1993) recognised the influence of the family, school and peers:

*"Emergence and development of gifted potential depend to a great extent on a supportive environment. Intellectual peers or developmental equals are significant people who are needed for healthy social and psychological development. All children need peers to interact with and from whom to learn, and so it is with the gifted"* (p. 94).

A model similar to that of Renzulli (1986) is proposed by Feldhusen (1985, 1986, 1992) who presents a modified definition of giftedness, which is criticised by Heller (1998) for overlapping with talent. Giftedness according to Feldhusen (1992), is

*"a complex of intelligences, aptitudes, talents, skills, expertise, motivations and creativity that lead the individual to productive performance in areas or domains or disciplines valued by the culture and time"* (p.5).

His 'Three Stage Enrichment' Model focuses on fostering creative thinking, research and independent learning for creative development and aims at strengthening convergent problem solving.

## **Giftedness is potential**

Tannenbaum (1997) adds a different slant when he proposes that since developed talent only exists in adults it is the potential for giftedness in children that requires a suitable definition. He identifies five factors that link potential with adult exemplary performance or production: superior general intelligence, exceptional special aptitudes, non-intellective facilitators, environmental influences, chance or luck. He comments that the five factors combine to produce great performance or productivity and that “*no combination of four factors can compensate for a serious deficiency in the fifth*” (p.30). The five factors arranged in the shape of a star give the name ‘Star Definition’ to the model. He subdivides talents into four categories ranging from Scarcity talents (exceptionally inventive people in their field, particularly in Science, Medicine), Surplus talents (mostly in the Arts), Quota talents referring to high level skills in traditional professions and Anomalous talents which are practical and unusual such as cookery, speed reading. His focus on the resources that the individual brings is compatible with Sternberg and Lubart (1993) who comment on the optimal conditions, which favour the individual to reach their potential using these ‘facilitating factors’. Horowitz (1992) emphasises that giftedness is developmental and not a static condition and is reliant on recognition and enabling environmental conditions, at home and at school.

## **Giftedness is not universal**

Giftedness, creativity and talent seem to be interchangeable in some models and

distinct in others. There is some belief that giftedness is 'innate' and talent is developed. Giftedness is not just high intelligence and some theorists suggest that external, situational factors must combine with the internal 'abilities' to enable giftedness to flourish. Certain models describe skills and behaviours and acknowledge the role of non-intellective factors, which can support or hinder gifted behaviour. Some models require evidence of performance rather than simply identifying those pupils with gifted potential who may actually underachieve. Webb (1991) also emphasises the role of the teacher who acts as a catalyst:

*"although gifted students possess exceptional capabilities, most cannot excel without assistance" (p.10)*

The gifted pupil will need others to facilitate learning. Kanevsky (1992) contends that the Zone of Proximal Development (Vygotsky 1962, 1978) is considerably wider in the gifted child than that of the average child. Therefore, the former with assistance (mediation or scaffolding) could learn more complex, abstract and difficult concepts.

Urban (1990) proposes a composite creativity model which emphasises the influence of environment, personality, process and product on creativity and also acknowledges the role that may be played by the political climate of the time and the socio-economic conditions of the family. This 'Components Model' of creativity is useful, according to Cohen and Ambrose (1993) because it *"enables researchers and practitioners to focus on specific aspects of creativity without losing sight of the whole"* (p. 346). They note that most theories of intelligence and

cognitive development do little to explain why some individuals develop more fully as gifted children or adults. Also, most gifted children are identified by ability tests, yet adults are regarded as gifted by their creative productivity.

*“Efforts should focus on creativity, working to understand how to support its development in children, so that they can become creative, productive adults” (p.349).*

If creativity is a brain-based function, then every individual is capable of being creative. Though unique to an individual is creativity, but this is neither gifted behaviour, nor is it an indication of giftedness. Porter (1999) proposes a definition for the realisation of gifted potential. When an individual is faced with a problem they rely on information processing skills to solve it.

*“Gifted individuals have some distinct neurological and intellectual processing characteristics which improve their task performance” (p. 45).*

She reports that there are differences in cognitive ability notably error rate and speed of processing, which enhance performance. Knowledge combined with neurological functioning and the environment will affect thinking and performance, namely the process and product of problem solving.

Table 2.2 (p.101) summarises the major theories and models associated with giftedness and shows a number of key points:

- **Cognition and memory** are considered as critical attributes according to: Guildford (1956, 1959), Renzulli (1979), Feldhusen (1985,1986,1992), Sternberg (1987,1993) and Tannebaum (1997).
- **Motivation** appears to be present in gifted behaviour according to: Renzulli (op.cit.), Feldhusen (op.cit.) and Sternberg and Lubart (1993).



- **Aptitude** is regarded as an important presence as discussed by: Feldhusen (op.cit), Gardner (1985), Tannenbaum (1997).
- **Creativity** is regarded as a separate component by Sternberg (op.cit.), Feldhusen (op.cit.) and Urban (1990).

Cognitive ability, memory and motivation are general learner characteristics deemed to be present in all branches of learning and present to some level or degree in all learners. The more able possess higher levels of these and the highest levels are regarded as gifted. Aptitude pertains to the specific skills required to achieve in a given field. Gardner incorporates linguistic intelligence as a separate entity. This aptitude for language may be a requirement for effective foreign language learning. A high level of aptitude may support gifted foreign language performance and could be an indicator of potential.

Gifted students seem know how to use what they know better, having advanced metacognitive abilities. They use prior knowledge selectively. They monitor and guide their own thinking. They are better motivated and cognitively more able and efficient. In conclusion, giftedness is not a universal trait. The individually gifted possess particular individual learner characteristics which when combined within a specific, valued context may cause the individual to flourish. A review of some of the studies of good foreign language learners in the next chapter may identify the same general individual learner characteristics and highlight additional skills and qualities required specifically for gifted foreign language performance.

**Table 2.2 Summary of giftedness models (including creativity)**

<b>THEORY / MODEL</b>		<b>DESCRIPTION</b>
Structure of Intellect	Guildford 1956,1959	Three dimensions: operations ( <b>cognition, memory</b> , convergent & divergent thinking & evaluation), content and product.
Multiple Intelligences	Gardner 1985	Seven intelligences: <b>linguistic</b> , musical, logical-mathematical, spatial, bodily-kinaesthetic, interpersonal & interpersonal
Triarchic Intelligences  Triarchic Abilities Test	Sternberg 1987	Five criteria: excellence, rarity, productivity, demonstrability & value  Broader than single IQ test
Investment Theory	Sternberg & Lubart 1993	Requires ability to analyse & synthesise, <b>cognition</b> & knowledge & <b>motivation</b>
Three Ring Conception	Renzulli 1979	Three components: above average ability, high task commitment, high level of creativity
Three Stage Enrichment Model	Feldhusen 1985,1986,1992	Combination of <b>intelligence</b> , <b>aptitude</b> , skill, <b>motivation</b> and creativity
Star Model	Tannenbaum 1997	Five factors: superior general <b>intelligence</b> , exceptional <b>aptitudes</b> , non-intellective facilitators, environmental influences & chance
Components Model	Urban 1990	Emphasises role of environment, personality, process and product on creativity

### **Chapter Three: Giftedness and foreign language learning**

The discussion in chapter two centred on the theories and models associated with foreign language learning and highlighted those that identify a presence of individual learner characteristics and the role they play in learning and performance. The final section focused on the concepts and models associated with education of the gifted from within a literature review that concluded that giftedness is associated with intelligence, motivation and opportunity. It is not a universal trait and consequently in this chapter the emphasis will be upon exploring and revealing the nature and strength of the individual learner characteristics commonly linked with gifted foreign language learning and performance in order to select a range of individual learner characteristics for the research for this thesis.

Foreign language teachers are aware that some foreign language learners are able to learn more successfully than others. They note those pupils who take a more active part in lessons and contribute more frequently, those who can recall vocabulary and are able to converse more fluently. Not that all these behaviours are an indication that learning is taking place or is more successful. However, as foreign language learning is about communicating, a learner tends to be judged by their output and by their behaviour in class. Lightbown and Spada (1993) refer to this:

*“It has been observed countless times that in the same classroom setting, some students progress rapidly through the initial stages of a new language while others struggle along making very slow progress” (p. 34).*

Investigating what makes a good foreign language learner could involve establishing what one learner can do that is qualitatively better than another. More importantly it

should involve an exploration of the general or specific foreign language learner characteristics they possess that may be contributing towards their more accomplished performance demonstrated by a more creative use of the foreign language, which ultimately defines them as a more able or gifted foreign language learner.

Identifying and critically discussing the current thinking and recent research into these attributes must include consideration of how these are measured, commenting on the use of objective tests and procedures associated with them which can inform foreign language teachers about the range of behaviours characterised by learner characteristics. Definitions and explanations of these may be of interest to a foreign language teacher, however, a test which not only describes associated behaviour within a range of subsequent learner categories, but can quantify it numerically could be useful to detect subtle changes within individuals over time. The intention of this part of the literature review is to single out those learner characteristics of interest, in that they may be contributing to gifted behaviour in the foreign language classroom. Another objective is to consider the feasibility of using some of the more appropriate test instruments within the current research into giftedness and creativity within the foreign language learning classroom in a state secondary school.

### **What foreign language teachers think**

Secondary school foreign language teachers, according to the survey undertaken by Jones (1991), comment on a range of learner characteristics, which may make a learner a good foreign language learner. The attribute most often mentioned is 'a good memory'. The survey is not specific about the type of memory (that is, short-term or

long-term memory) however, it is interesting that one hundred and sixty one teachers (from a sample of two hundred and eighty that Jones questioned) report that “a good memory” is a significant factor for good language learning. Seventy nine of those teachers surveyed, believe that pupils who can write accurately may become better linguists. Other qualities are listed including ‘*eagerness to participate orally*’ and ‘*motivation to the task and to foreign language learning*’. Yet there is no overwhelming consensus from the survey that there are learner traits, specific to foreign language learning. This survey data as presented gives us an indication that practising foreign language teachers attach importance to memory as an individual learner characteristic useful in foreign language learning and empirical research findings might support what these teachers have reported.

Research findings referred to in chapter two into instructed foreign language learning suggest that gifted language learners possess a combination of characteristics, which enable them to learn better. Those attributes, which have been researched more fully, include:

- Cognition: including general intelligence and language aptitude
- Learner strategies or styles
- Memory
- Motivation (The drive or behaviour response towards a short or long-term task)
- Attitude (For this thesis a broad interpretation of this learner characteristic is offered, that is, the demonstration of a positive or negative response to foreign languages, to foreign language learning and towards the native speakers and to their culture). Lightbown and Spada (1993) comment: “ *Depending on the*

*learner's attitudes, learning a second language can be source of enrichment or a source of resentment"* (p.40)

There is some evidence of age related differences existing in foreign language learners. Age, as an influencing factor, should be considered if one is intending to compare learners from different age groups or to contrast adult with child language learners in their rate and level of acquisition. However, for the purposes of this thesis, it is my intention to focus on secondary school pupils embarking upon foreign language learning courses, at the age of eleven or twelve, regarded as beginners. The explanation of age as a factor of individual difference will not fully account for variation in performance and creativity in this case. However, an awareness of learner age and intellectual development does provide the teacher with a basis for understanding what secondary school pupils can be expected to achieve in a given subject discipline and why, according to the pupils' level of general cognitive and affective maturity. Therefore, age as a moderating variable, could indirectly be contributing to individual variation within the context of this research into foreign language learning.

### **The Good Language Learner Study**

Naiman, Frohlich, Stern and Todesco undertook one of the most influential pieces of research into foreign language learning in the early 1970's. This Canadian study was carried out to isolate the learner variables from amongst personality traits, cognitive style, learner strategies and environments, which would predict success in foreign language learning and so identify the characteristics of a 'Good Language Learner'.

Although it was conducted and published almost three decades ago, it was a substantial undertaking to explore and discuss a range of foreign language learner variables using objective tests, which had in some cases, not been used in connection with foreign language learning research before. It remains a generally well-regarded piece of comprehensive research and a logical starting point prior to embarking on one's own research in this field.

In the study, students were selected from developmental foreign language learning stages including beginners, intermediate and advanced French language learners in full time education. Linguistic competence was measured using both a listening comprehension test and an imitation task. A team of researchers observed the students and they and their teachers were questioned about their preferred mode of learning. The intention was to identify the cognitive styles and personality characteristics that successful foreign language learners consistently demonstrate. The International Association for the Evaluation of Educational Achievement (IEA) tests were selected for use as measures of linguistic competence because they had been designed according to Naiman et al. (1978):

*“ so that the student's response to an item was dependent upon a complex function of his total degree of competence in French, not on his knowledge of any particular item of vocabulary, morphology or syntax.” (p. 63)*

The test was designed to assess proficiency in French. Cognitive styles were investigated using the Hidden Figures Test (1962), a test of perception, a trait which Naiman et al relate to foreign language learning as the ability to handle new sounds and syntax which may be confusing and complex to a language learner. This ability is described as field independence and is present if an individual can isolate an element

from its background field, using a picture in the test. Naiman et al hypothesised that a less successful foreign language learner (field dependent) may find it difficult to focus on the task by misinterpreting the appropriate cues and attending to the irrelevant ones:

*“the more successful language learner is the one who is able to focus on those language stimuli relevant to the language learning task at hand...”* (p.67)

Coping with interference from the native language and being flexible enough to focus on another language is assessed using a speed of colour discrimination test developed by Messick and Fritsky (1963), designed to test if a student can resist the more powerful verbal response. Category width tests relate to an individual's tendency to either over generalise or make precise, accurate generalisations about language rules. According to Naiman et al. the more successful language learner would be at a mid-point, taking more calculated risks to simplify learning.

### **The personality of a ‘Good Language Learner’**

Personality traits were tested within the Naiman et al study using the Intolerance of Ambiguity scale (Budner, 1962). This had not been used before in relation to foreign language learning and Naiman et al selected the test based on suggestions by Stern (1975) and Rubin (1975) that a more successful foreign language learner is more tolerant of ambiguity and is neither threatened by, nor expresses dislike towards novel or complex situations, in this case, a different language and culture. Another test previously not used in connection with foreign language research, Mehrabian's Sensitivity to Rejection Scale (1970) was selected to identify those students who might express more concern about making errors if asked to speak out. It was



hypothesised that a more successful foreign language learner would not feel they were at risk of rejection nor be subject to ridicule by their peers if they contributed orally and made a mistake in their language output.

Empathy, a further personality characteristic, was explored in the context of foreign language learning, using Hogan's Empathy Scale (1969) as a measure of how sensitive a language learner is to tackling not only the new language but also the culture. Introvert and extrovert behaviour was assessed using the questionnaire devised by Eysenck (1963), which identifies consistency to item responses. According to Naiman et al (1978) this had not been applied to foreign language learning and it was hypothesised that there would be a correlation between sociability and proficiency in spoken French. Finally, the Gardner and Smythe (1975) Attitude Battery, which assesses motivation was selected in the abbreviated form having been validated for use in Canada. Other parts of the research included lesson observation in which pupil behaviour was coded and recorded and student interviews were conducted to elicit information about attitude to learning a foreign language within the classroom setting. Naiman et al (1978) comment on this:

*"Certain personality and cognitive styles are related to success in language learning.... In the early stages, factors such as tolerance of ambiguity may be more related to success than at later stages, while factors such as field independence may be crucial at more advanced stages"* (p. 218).

Douglas Brown (1994) discusses acceptance of ambiguity or tolerance of ambiguity and describes this an asset for a foreign language learner to possess, since it enables the learner to resolve ambiguous items such as culture differences or language rules.

## **Findings from the Good Language Learner research**

None of the results from the Naiman et al research show significance in personality or cognitive style according to the sex of the subjects. Results pointed to tolerance of ambiguity and field independence as the only measures which correlate with the criteria measures of linguistic competence and receptive / productive competence. Yet the age of the learner or the length of time they have studied the language appears to be exerting an influence on learners, which may explain the variation in the predictive power of these variables. Naiman et al. refer to this phenomenon in their results analysis. An imitation task was used as a measure of receptive/ productive competence. All the attitude measures correlated with this linguistic competence test apart from two variables: instrumental orientation, (a motivation drive) and lack of ethnocentrism. The results of the teacher interviews showed that their evaluations matched what the students said at a general level.

## **A critique of the 'Good Language Learner' findings**

Naiman et al. (1978) state that after the completion of classroom observation they could not identify whether the students were successfully learning or not as it was not possible to identify the strategies used by the students. Yet they assume there is some significance in what the students report and therefore some relevance to the discussion of learner strategies from the student interviews, although there is no direct evidence from observation. Therefore, my criticism of the student interviews relates to reliability of data using this technique. Students may be recounting what they say they do, because it is what they think they should say, rather than an accurate reflection of their behaviour and personality in class. They were observed and interviewed by

researchers who did not have the access to the wider knowledge of the individual students that their teachers had.

Other results from the student interviews are more reliable and that there are indications that several measures significantly correlate with success. Three variables were combined and personality was still correlating as a significant factor. Regression analysis results suggest that field independence; the student's preferred learning mode and another motivation drive (integrative orientation) are predictors of linguistic competence. In the imitation test, the student's attitude to learning was a more powerful predictor.

### **Methodological considerations**

Naiman et al (1978) carried out separate analyses and noted many differences in results according to the level of language learning, namely, the student's grade or year group. Cognitive style, personality and some attitude factors were more important as predictors with the beginners and intermediate learners and field independence was more important with the more advanced students. Age was found to correlate highly with field independence. Differences in the other variables were attributed to 'differences within the populations'. Naiman et al claim that this substantiates their hypothesis that less successful learners do not possess the positive attributes or attitudes and cognitive styles to enable them to learn a foreign language successfully. This results in a wide variation in scores in the lower grades, than in the higher because the less successful students drop French at the end of the eighth grade (the beginners' grade). Field independence, tolerance of ambiguity, and attitude and motivation were the variables, which appeared to predict foreign language

performance in older students. However, there are a number of criticisms at this juncture. The research is based on data collection from three grades or year groups. The intermediate and advanced groups (grades ten and twelve) are comprised of older students, who have learned French longer and have presumably opted to continue to study the language, having experienced success. The populations are different if the less successful or less positive learners are able to opt out. If students do not opt out the presence of less successful language learners in a group may affect the dynamics of the group and the results. If there are fewer less successful language learners in the older grades then the change in the ability composition would affect the overall capability of the group and its pace of learning. The groups in the study are skewed towards more able populations than the beginners groups. Therefore the populations are not comparable since they are not 'mixed ability' by grade twelve. It is not apparent from the results analyses of Naiman et al. (1978) that this is what their reference to 'differences in the populations' actually means. Another criticism is that the populations are not the same subjects studied over time and I believe this may also account for the variations in variables and in their predictive power. A longitudinal study of the same foreign language learners may also produce variations in predictive power or it may not and could also highlight different variables over time within the same population. This would offer a more accurate and representative picture.

The sample size of seventy two in the Naiman et al (1978) study seems quite small although this population was selected from classes from six different schools and included seventeen bilingual students representing the linguistic diversity in Canadian schools. The use of the French proficiency test as a criterion for success was appropriate in the research setting for Naiman et al in Canada. However, this test

would not be useful to a teacher of Urdu because learners would probably have little or no experience of French. The criterion measure for linguistic competence therefore cannot be utilised outside the French language learning classroom. This restricts where the methodology could be reapplied. However, the choice of an alternative test to accommodate other foreign languages may produce results which could be contrasted with the Naiman et al. findings and establish which are the better predictors for foreign language success and to establish a superior criterion measure for linguistic competence.

Using an imitation task as a criterion for receptive/productive competence would have been very straightforward to administer. The purpose was to highlight the role of short-term memory in language learning. The findings show that competence increased between grade eight to grade twelve. Recalling the Foreign Language Teachers in Cambridgeshire survey conducted by Jones (1991) at this point highlights the notion of 'a good memory' as an important attribute. Using an imitation task of sentences in French again restricts a researcher intent on addressing the same issue with learners of other foreign languages. An alternative test of short-term memory which did not rely on any one foreign language could test the skill power and could be considered an additional learner variable, with potential for prediction studies into foreign language learning.

A further discussion point is the classroom observation analysis. There is no direct evidence that learning is taking place although students admitted that they applied learning strategies outside the classroom. However, this together with the data from the personality tests does inform us about students' sensitivity and attitude to learning

in a formal setting. The data from the student interviews generally matches what the teachers had evaluated and despite the apparent subjectivity of self-reports it was considered a useful exercise to inform the foreign language teachers of their students' preferred learning activities and modes. This technique would seem to be straightforward to conduct taking ethical considerations into account and an unexpected outcome was the potential practical benefit of sharing information about learning.

Another test that may not be of use in England is the Attitude Battery selected and validated for use in Canada and not necessarily accessible to learners outside Canada from a readability perspective. Cultural differences and language styles may not transfer and pupils could have difficulty in establishing the meaning of idiomatic expressions and cultural references. As attitude and motivation appear to play an important role in foreign language learning, particularly for less advanced, generally younger learners, they are a pertinent choice for my research into foreign language learner variables (p.154). A survey into pupil attitude to foreign language learning survey could be a useful technique in future research if the survey evidence of Jones (1991) and the findings of Naiman, Frohlich, Stern and Todesco (1978) strongly suggest that it may be a determining factor in future success.

Overall, the work undertaken by Naiman et al has strength in its focus on personality variables. Graham (1997) notes that there is an emphasis on the relationship between the "*general psychological make-up of language learners and their behaviour in the classroom*" p.38. The results suggest that motivation and attitude are powerful influences on foreign language learning and there does not appear to be a lone factor

operating to a greater or lesser extent exerting an influence on foreign language success. It is also useful for identifying where to look for interactions. Skehan (1989) refers to the earlier work of Carroll (1965), who proposed an Interactional Model, which includes two sets of variables: Instructional Factors and Individual Differences. The latter includes general intelligence, aptitude and motivation. Aptitude has several sub components – associative memory, inductive language learning ability, grammatical sensitivity and phonemic coding ability. Motivation is seen as an individual's perception of need to learn another language and intelligence is seen as the factor that drives the individual to focus on their learning and remain orientated to their goal. Skehan (1989) sees similarities in the 'Good Language Learner Model', however, he considers the former is more comprehensive because Carroll (1965) recognises the interaction between variables and comments on how differences in one variable will constrain the operation of the others. This effect can now be investigated statistically using computer correlation tests and the results may produce evidence of interaction effects between variables. Skehan (1989) refers to this within the Disjunctive Model, discussed in chapter two which does not assume that the relationship between variables is always linear nor that an increase in level in one variable will lead to an increase in the others. He comments:

*“ it is, however, possible that particular outcomes may be achievable by different routes, and that the different routes may be dependent on different configurations of abilities.” (p. 8)*

It is also possible that the configurations of abilities do not remain static during foreign language development and outcomes (that is, individual performance) could be predicted using different variables as predictors at the different stages of foreign language development.

Whilst there are some methodological concerns with the ‘Good Language Learner Model’, which may present replication problems in schools outside of Canada, the research does present a thorough enquiry into learner variability. It highlights the importance of ensuring methodological and ethical considerations are contemplated in relation to data collection and selection, validity and reliability.

Later studies in learner variables and strategy use include the investigation by Grenfell and Harris (1993,1994). They note that certain emotional factors influence the language learning behaviour of older pupils. Students were asked to indicate which strategies they used most often from a checklist. Their results according to Graham (1997) highlight a difficulty in tracing strategy use related to the age of learners.

Graham (op.cit.) relates oral work to learner strategies and observes that “*students need to be reminded that to get maximum exposure to the language you need to be able to keep the conversation going*” p.89. Strategy training would help learners to incorporate this into their behaviour in class and advance their learning. The motivation to learn would presumably trigger learners to seek out alternatives to aid this and improve their performance. Lennon (1993) describes motivation as “*the most important single factor influencing continuing development in oral proficiency*” (p.41).



## **Characteristics of gifted foreign language learners**

A resume of the characteristics of good or gifted foreign language learners illuminated by the research findings of Naiman, Frohlich, Stern and Todesco (1978) will first consider the concept of attitude. Johnson (2001) asserts that adolescents are more likely to be less receptive to the idea of anything different presented to them and Krashen (1981), thinks that attitude may help to predict how good someone will be at learning a foreign language. Attitude to foreign language learning is considered in relation to the optimum age for foreign language learning. Piaget (1972) and Kohlberg (1983) describe the development in children of their understanding of place. Piaget (op.cit.) points out that before children can understand their own culture they have to be able to step outside it or 'decentre' and begin to understand points of view different from their own. They pass from egocentricity to socio centricity when their opinions change from the arbitrary to views that reflect their immediate environment. The final stage gained by the age of ten or eleven is called reciprocity, when children can perceive other peoples' views of them and develop the awareness that to others, they are foreigners. How they respond to others and their attitude towards them is presumed to be as a result of this maturation.

A study of children's perceptions of the world from the discipline of Geography, amplifies this in a spatial context and I believe demonstrates the existence of an interface between psychological development and communication. Matthews (1988) compared maps drawn by groups of children and found that boys begin to visualise spatial configurations in a different way to girls:

*“A higher proportion of boys were able to depict places in a spatially related and logical manner” (p. 49).*

He is referring to the differences in ability to visualise places and to make sense of their spatial order. This is manifested in a classroom context, in the way children can confuse cities with countries, and knowledge of place outside their own neighbourhood can be limited, often reflecting gender differences in socialisation, possibly as a result of parental attitudes to play. Wiegand (1992), another geographer, conducted research into pupils’ understanding of place and space in a primary school setting. His research points to the difficulties young children have with units of space. He describes the relationship between cities and counties and countries and continents, as a ‘nesting’ arrangement, like a set of Russian dolls, not immediately realised by children. He concludes that by the age of eleven children can:

*“understand part-whole relationships, prefer their own country by reference to collective ideals and recognise and understand the significance of different national symbols” (p. 54).*

He refers to a *“downward curve in international and interracial goodwill”* during adolescence due to the adult stereotypes that prevail. Yet at aged nine to ten, primary school pupils are able to *“accept more similarities between themselves and other peoples; are increasingly able to see the point of view of other peoples”* (p.54). It is not clear by how much this is as a direct result of their inability to recognise spatial patterns or an outcome of socio-cultural influences, including the effect of stereotyping on their own attitudes. The former can be defined as an example of non-verbal reasoning and can be isolated and independently tested. The latter, a possible outcome of anglo-centric attitudes to foreign languages leaves foreign language teachers with an uphill task of encouraging positive attitudes to foreign cultures and

places, when pupils' immature spatial awareness can indirectly be inhibiting this and negative stereotypes could also be exerting an influence. I believe that this does support the case for learning foreign languages prior to the primary-secondary transition. Research completed by Lambert and Klineberg (1967) studied pupil attitudes towards foreigners and concludes that at about age ten children are at their most receptive to other cultures. Gardner and Lambert (1972) noted this and as a result have suggested that the best age to start learning a foreign language is at the age of ten.

The internal and external forces which influence learner behaviour are considered firstly from a geographical viewpoint as individual attitude to place and secondly from a psycho-linguistic perspective looking at the individual attitude to foreign language learning. The combined effect of internal or innate components of general intelligence or cognitive ability, together with external 'pressures', namely, peer, parent and societal outlooks can also be responsible for the diversity of opinions and attitudes towards learning a foreign language in school. Revealing what the optimum combination of individual variables is for gifted foreign language performance is a challenging prospect in the light of the Naiman et al (1978) findings. Whilst they do not actually provide a water tight set of behaviours, like a checklist for foreign language teachers to use, they do strongly indicate which variables may shape gifted behaviour and establish a necessity to continue foreign language learning research from within and outside the linguistics field.

## **The role of cognition and language aptitude**

General intelligence (p.70-76) and language aptitude (p.28) were not included in the large range of variables in the Good Language Learner study, an omission due to time constraints and because Naiman et al (op.cit) chose to concentrate on factors previously neglected by other researchers. If intelligence levels are viewed by Lightbown and Spada (1993) as:

*“ a good means of predicting how successful a learner would be at language learning “ (p. 36),*

then a gifted language learner would presumably possess an above average level of intelligence. However, Lightbown and Spada suggest that intelligence is more directly related to written and reading tasks and is less likely to influence the development of oral language. In a formal learning setting with a greater emphasis on written and reading tasks then intelligence will play a greater role in performance. As the setting for my research into foreign language learning will be in secondary school education it will therefore be necessary to note what role intelligence plays in language learning and engage in an investigation into its potential as a foreign language learner predictor. Intelligence tests, assessing verbal and non-verbal reasoning, are administered annually in many secondary schools in England as a means of identifying pupils with exceptional ability and those requiring additional support with literacy. Receptive language ability is a robust indicator of intellectual ability according to Davis and Rimm (1999), who comment that advanced language skills come about because of a child's advanced cognitive skills (that is, their abstract thinking ability):

*“Gifted children’s advanced language abilities and advanced understanding of cause-and-effect relationships allow them to display a high level of planning and to use metacognitive skills earlier than average learners” (p. 56).*

Verbal reasoning and non-verbal reasoning may have some effect on an individual’s ability to learn a foreign language and could be potential predictors of learning success. Douglas Brown (1994) ponders the role of intelligence in foreign language learning and concedes:

*“in its traditional definition, intelligence may have little to do with one’s success as a second language learner: people with high and low IQs have proven to be successful in acquiring a second language” (p. 94).*

Clearly other factors are exerting an influence on the individual if they can perform well in the foreign language classroom, yet have low intelligence test scores. Also a narrow definition of intelligence does not sufficiently account for foreign language giftedness and Douglas Brown (1984) comments on this with reference to the work of Gardner (1983) whose research into multiple intelligences asserts that musical intelligence:

*“could explain the relative ease that some learners have in perceiving and producing the intonation patterns of a language”( p. 94).*

More sophisticated auditory perception or a more rapid processing speed following auditory input could be an additional determining factor. He adds that intrapersonal intelligence is important for communication and speculates if ‘spatial’ intelligence, enabling the learner to have a ‘sense of direction’, may assist the foreign culture learner in growing comfortable in new surroundings whether in the classroom or in

the foreign country. His use of this geographical concept and terminology reinforces the views expressed by Matthews (1988) and Wiegand (1992).

### **The inter-cultural speaker**

There has been some research undertaken by Zarate (1997) into language and culture, which enriches the discussion of multiple intelligences in its depiction of interpersonal skills at work in the foreign language learning context. Moving away from the more traditional interpretation of academic intelligence, foreign language learners are described as 'intercultural speakers' who possess a range of interpersonal skills enabling them to tolerate and actively migrate towards foreign cultures and languages. Zarate (1997) describes the more gifted intercultural speaker as skilful because:

*"He or she is seen as somebody who crosses frontiers, and who is to some extent a specialist in the transit of cultural property and symbolic values*  
(p.11)

In addition she comments that a high level of specific skills is involved in the transmission of values, akin to inter- personal or social skills, which assist the learner in identifying areas of conflict, explain conflict in behaviour or beliefs, and aid conflict resolution or negotiation. Her skill descriptions are located within a geographical framework, giving a concrete feeling of place or space and she believes that good intercultural speakers will venture beyond short-termed tourist visits and be more mobile in pursuing an interest in the language and culture of a place. She grades intercultural experiences according to the level of discomfort or comfort or tolerance experienced ranging from the lowest level to highest level in:

*“the phenomena of resistance to discovering an unknown area without arrangements for assistance (as in the case of a commercial tourist experience)”*  
(p.12)

A gifted intercultural speaker would not necessarily be fluent in the foreign language but would be able to demonstrate *“the approximate use of language in crucial situations where failure to use it would result in rapid or serious social sanctions for the learner”* (p.12). They would possess an *“ability to make and sustain personal contact with one or more members of the foreign community”*. This evokes an image of an individual with a sense of place and direction, an ease and confidence in unfamiliar surroundings, and after a period of time would be moving towards integrating into a social and language community to which they do not belong. This individual possesses skills and personal qualities desirable within a geographer and a linguist. The ability *“to manage spatio-temporal constraints”* for example, arriving punctually in an unknown place could be as simple as reading a timetable or a street map or finding someone prepared to explain its vagaries. No doubt some foreign language teachers could find examples of intercultural speakers amongst their pupils, those who have revelled in the opportunity to re-orientate in unfamiliar surroundings on a foreign language exchange trip. They have settled in with their friend’s family, use the foreign language they have learned and add to their knowledge in a more natural learning environment and are tolerating cultural and linguistic variations.

Zarate (1997) is extending the traditional skill repertoire of a successful foreign language learner to include openness to others, and a willingness to reflect on one’s own culture resulting from first hand experience of another. She categorises these non-linguistic skills as *‘savoir être’*, the skill independent of a specific foreign

language which is transferable to learning another language. 'Savoir -apprendre' is the ability to *"devise and implement an interpretative strategy which sheds light on unfamiliar cultural meanings, beliefs and practices associated with a language or a culture with which they may or may not be familiar"* (p.13). Other skills include: 'savoir' (knowledge) of the system of cultural references depending on the learning of a given language and 'savoir faire' namely, the ability to combine all three skills and make use of existing academic knowledge to recognise links between learners and their foreign counterparts.

Assessment of intercultural skills in foreign language learners would occur in a natural setting when an individual is confronted with unknown cultural practices and presented with situations where a good foreign language learner would show their degree of understanding. From a researcher's point of view, this would be extremely complex to manage. Pupils demonstrate what they can do by doing so in a natural setting and not by saying what they do in an interview. However the strength of this emphasis put forward by Zarate represents a more sophisticated, detailed classification of 'intrapersonal skills', which I believe enhance foreign language learning research, since these are skills that could assist in the description and explanation of individual language learner variations. The development of these skills is implied within the National Curriculum programme of study for Modern Foreign Languages (DES 1999) (p.8, p.14) and in the Nuffield Report (2000) Languages: the next generation where reference is made to cultural awareness and understanding (p.30). Wiegand (1992) concludes that language teachers have a major influence on the cognitive domain of language learning, and an important role in the affective domain, namely, the encouragement of positive attitudes to foreign languages and



cultures, embedded within their foreign language teaching. I would endorse that geography teachers can contribute to language learning with an emphasis on cultural patterns and comparisons in their teaching and by demonstrating or modelling positive attitudes to language learning within the study of places.

Salter (1989) describes the skill areas or ‘competences’ that a gifted linguist would demonstrate most succinctly. These range from linguistic skills, the ability to handle and manipulate words, to situational know-how, that is, judging where and when to apply this knowledge. He refers to the skills of the communicator as the skills of ‘Linguistic Competence’:

*“ a vocabulary and sufficient structural knowledge to organise the vocabulary into meaningful utterances” (p. 4),*

and to the tactics used by a learner as ‘Strategic Competence’ namely:

*“ being able to use compensation strategies, either verbal or non-verbal, to repair situations in which the user’s linguistic competence is insufficient for his or her purposes” (p. 4).*

The latter requires some explanation and Salter (1989) frames this in a manner echoing the skills outlined by Zarate (1997). ‘Socio-linguistic competence’ involves knowing what sort of language suits particular roles or settings and ‘discourse competence’ is the ability *“to handle those elements of the language which bind separate utterances into coherent wholes”* (p.4). The ability to understand that meaning is determined by the culture in which the language is used, (socio-cultural competence) and this requires a certain degree of self-confidence and a desire to interact with others through the medium of language. Salter (1989) and Zarate (1997) have indicated both the range and complexity of implicit skills required by a foreign

language learner in addition to cognitive ability. These subsets of competences may require an aptitude for foreign language learning and it is this learner characteristic, which I will examine next.

### **Foreign language aptitude**

Aptitude is a complex foreign language learner characteristic that is sub-divided into a set of measurable linguistic, communication and cognitive skills. Its origin, whether as a distinct skill possessed only by gifted foreign language learners or as a general component of verbal intelligence, may become clearer following a close examination of aptitude tests available for foreign language learning prediction. It is interesting to note that Reves (1983) has found that aptitude did not correlate very highly with achievement criterion in formal language learning settings and was a more effective predictor in informal settings. Naiman et al (1978) had excluded aptitude from their research design and focused on the variables that had been researched less. They later acknowledged this as an oversight, because its absence from their findings prevented a thorough picture emerging from classroom based studies. Krashen (1981) notes how aptitude is important for classroom learning and attitude is important for more “informal” real-world situations. He comments:

*“ a high aptitude does seem to predict success in a language classroom which is grammar based and on tests that demand grammatical analysis rather than real communicative ability” (p. 8).*

The debate about the nature of aptitude and its value as a predictor in determining gifted foreign language learners in schools is interesting to speculate. It is broken down into factors such as memory and grammatical sensitivity according to Cook

(1991) and has been explored both as a constituent of verbal intelligence and as distinct and separate. Larsen-Freeman and Long (1991) comment on the debate fuelled by evidence to support the former and the latter. Carroll (1973) developed a Modern Language Aptitude Test with Sapon in the late 1950s, placing aptitude as independent of motivation and verbal intelligence. Carroll argues that intelligence and aptitude may overlap but are not identical. Skehan (1989) writes of the 'residue' effect, a term he acknowledges from Carroll (1973), which suggests that success in a foreign language may be determined by the rate of learning of the first language. He comments:

*"the correlation between first language acquisition and aptitude reflects the way aptitude measures tap underlying language learning capacities"* (p. 32).

He concludes that there are sub-groups of learners revealing different routes to successful language learning. He refers to young learners who are characterised by good memories and less grammatical sensitivity than older foreign language learners, who have average memories and are grammatically more sensitive. He comments that aptitude research may have been reflecting two contrasting orientations to language and language learning. This also provides more detail about what learners can do depending on age and cognitive development. Skehan (1989) relates 'learner types' to rate of learning and outlines the three components of foreign language aptitude as: phonemic coding ability, language analytic ability and memory utilised by the learner depending on the foreign language setting or what the classroom task demands. Ellis (1994) adds a fourth component to aptitude, namely, rote learning ability involved in vocabulary learning and refers to the work of Cummins (1983) who distinguishes between basic interpersonal communication skills, required for oracy, and cognitive academic language proficiency. Oller and Perkins (1978) define the latter as a 'global

language proficiency factor', claiming this accounts for variation in language skills and is akin to general intelligence.

Aptitude may have to be present in formal learning settings, and strength may vary between individuals yet be consistently high in the gifted and this association justifies its selection as a learner characteristic within this research. Skehan (1989) notes that using aptitude as a predictor in classroom-based research results in low correlation results, a possible future trend to look out for. This is because there are other influencing factors operating on single predictors, including cognitive style, learner strategies, motivation and memory, which may correlate with success criterion measures. The latter will now be examined.

## **Memory**

If a good memory makes a good language learner (Jones, 1991) then some pupils will be disadvantaged at the onset of a foreign language course. Research into cognition indicates that memory can contribute to language learning, influencing its rate and depth. Pupils with a limited short-term memory capacity have no means of reinforcing auditory learning by visual learning and learning can take place only after short-term exposure to a voice or tape according to Hawkins (1987). He states that both short and long-term memories improve with maturity up to the age of eighteen. Foreign language learners will have a more mature memory and retrieval techniques may be well established. Concentration is better controlled and receptivity and awareness of pattern is heightened by an improved short-term memory. He considers that there are two branches of research of interest to foreign language teachers and they include the

study of different kinds of declarative memory (episodic/semantic) and the study of the mechanisms used for processing and memory storage. Summarising the work of psychologists of the time he explains that the storage of memory of events (episodic) is probably different to that of meaning (semantic memory). Using both verbal and non-verbal reasoning as cognitive variables in foreign language learning prediction research will therefore allow for these differences.

Hawkins refers to the work of Miller (1956) whose paper, 'The Number Seven' refers to the limited number of pieces of information the average adult can store and retain for a brief period in short term memory. Caplan (1972) adds that the information once decoded is not retained in its original state, however the meaning is encoded into the long-term store. Miller's calculation was based on a random digits test. The digits are presented to the listener at a regular speed without bunching. Bunching or chunking information does tend to improve memory capacity. Short-term memory is not normally under conscious control, and its function is to retain features long enough for some processing to be carried out. However, the rehearsal of information (repeating information aloud to maintain short term memory) is an active, conscious learner strategy. Digit span is related to intelligence and is used in Stanford-Binet (1988) and Wechsler (1974a, 1991b) intelligence tests. Relating this to foreign language learning, Olson (1973), conducted experiments and concluded that short-term memory correlates poorly with foreign language learning. Olson explains this by looking back at Miller's observations, which are that short-term memory capacity is increased with maturity via linguistic processing:

*"The performance deficits we find in younger children's remembering are due to failure to organise, plan, monitor and integrate their information processing" (p. 233).*

This suggests that linguistic processing in either the first or second language is a learned process. Hawkins identifies pattern recognition as possibly the first step to processing incoming messages. The ability to recognise that a pattern is different and quickly categorise it precedes more complex processing. Over stimulation, that is presenting too much information for the short-term memory will confuse and interfere with this process. This is important for teachers to bear in mind and Stevick (1976) reflects on this:

*"Silence... gives the mind maximum opportunity to extract information from a short bit of aural input.... This use of silence means that the student derives more benefit per audible model from the teacher" (p. 139).*

He considers this with reference to the York Language Aptitude test (Green, 1977), which is a paper and pen test conducted in silence. Processing incoming information involves mental activity similar to that involved in reading and writing. The test conditions, according to Hawkins (1987) provide the appropriate setting for pattern recognition and he endorses the predictive value of this test for both reading and listening skills.

Thompson (1987) states that memory techniques are frequently left to the individual learner, dependent on their proficiency level. Hosenfeld (1977) studied effective reading strategies in good language learners and concludes that they can hold the meaning of the text they are reading in their working memory and use this to predict further meaning of the rest of the text. Although Clark (1979) has found that some

foreign language learners fail to transfer reading skills from their first language as a 'short circuit' caused by a limited command of the target language. However, Thompson (1987) points out that there is no evidence that good first language readers are good foreign second language readers

Good memory and an awareness and application of certain techniques could enhance performance in a foreign language in some learners. Anderson and Kulhavy (1972) and Denis (1982) have researched imagery ability and their research indicates that pupils with high imagery ability are able to visualise and so recall and recognise information from texts and narratives more effectively. Douglas Brown (1994) comments on the preference learners may show for visual or auditory input. He adds:

*“ the most successful learners utilize both visual and auditory input, but slight preferences one way or the other may distinguish one learner from another, an important factor for classroom instruction” (p. 113).*

The work of Logie (1999) challenges the view that short-term memory acts as the gateway between perception and long-term memory. He asserts that 'working' memory, is a more accurate description of short-term memory:

*“ The use of the descriptor “working” implies that this is not simply a passive, temporary deposit box for the left luggage of perception (as was one suggested role for the old concept of short term memory” ( p. 175).*

He describes working memory as a collection of cognitive functions including the phonological loop, the temporary retention of verbal material or sounds (phonology), drawing on prior knowledge and perception. Earlier research undertaken by Baddeley (1986) refers to this as the “auditory loop” and Cook (1996) discusses this in connection with cognitive deficit. Foreign language learners are inhibited in the

amount of knowledge they can process in the short-term memory and too much information too quickly would minimise learning. Working memory is limited in that it is not permanent and updates to avoid crowding with unessential information. Repeating a foreign word (rehearsal) relies on the phonological loop and hearing a word frequently increases the chance of remembering the sound and the meaning. A good memory for a foreign language learner is accurate, rapid sound retrieval, which is closely linked with the speech system. Sequences of longer words will be more difficult to remember than shorter words. People who speak quickly have longer digit spans than those who speak slowly according to Nicolson (1981) and digit span varies between cultures because they are language specific. Consequently longer words take more time to rehearse. For instance, Welsh and Italian words for digits are slightly longer resulting in shortened digit spans (Della Sala and Logie 1993), whereas Chinese words are shorter and digit spans are consequently longer (Stigler et al. 1986). Memory decay may have already set in causing a breakdown in rehearsal. A digit span test, administered in the first language to foreign language learners would be a useful measure for short-term memory as a selected variable, the results of which would not be affected by the length of the word in the foreign language. The intention of this research is not to investigate number learning in a range of foreign languages, but to test short-term memory as a learner characteristic and potential predictor of successful foreign language learning for native English speakers.

Some research into young children's ability to repeat nonsense words at age three or four predicted their language ability years later according to Gathercole and Baddale, (1989). The ability to repeat unfamiliar speech sounds is important in acquiring vocabulary and other language skills. This is tested within the revised Modern



Language Aptitude Test (Carroll and Sapon 1958, 1997) in the number learning section, which assesses the memory component in language aptitude in a language unknown to the pupils sitting the test. The sounds are unfamiliar and therefore, the greater the expertise the individual demonstrates, the greater their working memory capacity for information, that is, to retrieve sounds accurately. An awareness of the target language rules and the ability to use memory to promote foreign language learning are learner characteristics known as learner strategies, which will be discussed.

### **Learner strategies**

Research into language learner behaviours or strategies is traced back by Rubin (1987) to Carton (1966), who studied learner variations in ability to infer meaning and the influence of risk taking on this. His research into learner inferences focused on the role and influence of existing learner knowledge of a target language, of the transfer of knowledge between the learner's mother tongue and the foreign language, and the learner's ability to predict what is said in a natural setting. Rubin concentrated her own research on the breadth of learner strategies and her results published in 1975 highlighted individual learner characteristics including risk-taking, tolerance for ambiguity and vagueness and willingness to appear foolish. She classified these as 'learner psychological characteristics'. Also identified are communication strategies such as the use of circumlocution and gestures; social strategies, that is, seeking opportunities to use learned language and finally cognitive strategies, guessing, inferencing, analysing, categorising, synthesising and monitoring. These categories were refined in 1981 as 'processes that may directly contribute to learning and those that indirectly may contribute'.

Learners realise that practising the foreign language will support their learning. Hosenfeld (1977) is credited with reporting on metacognitive strategies in successful readers who used a form of contextual guessing. Further research undertaken by Wenden and Rubin (1987) identified the important role metacognition has in language learning, that is, what learners know about their foreign language learning. This phenomenon was noted in the Naiman, Frohlich, Stern and Todesco (1978) research which found that good foreign language learners possess the ability to adapt or modify the teaching situation to a style that suits them better. They demonstrate more frequent participation in tasks and the awareness that language has a dual function: as a system for communicating and as a knowledge base. McDonough (1995) notes that Naiman et al (1978) hypothesised that the good foreign language learners will try to improve their knowledge by making intelligent guesses and will view the foreign language as separate to their first. By being aware of the demands of foreign language learning they are more likely to persevere even when they make mistakes. Holec (1987) describes gifted language learners as capable of assuming the role of the manager of their learning:

*“They know how to make all the decisions involved. In other words, they know how to learn”* (p.147).

Wenden (1987) comments that autonomous learning is not an objective implemented in the foreign language classroom. If this is the case, the work conducted by Naiman et al (1978) who did not produce evidence of learner strategies used in the classroom, was highlighting a pedagogic oversight.

O'Malley and Chamot (1990) undertook extensive research into learner strategies having categorised these into three broad areas: metacognitive, cognitive and socio-affective. Metacognitive strategies relate to knowledge how to learn, for example by planning and monitoring. Cognitive strategies enable language learners to infer meaning, summarise and transfer. Socio-affective strategies include co-operation, questioning for clarification and self-talk. The use of these strategies is described within a framework of knowledge processing. The foreign language is processed as knowledge as information and knowledge as skill application (declarative to procedural knowledge). This requires transfer between the short and long-term memory until the information is learned and becomes automatic to the learner, so they do not have to think about it. As a consequence more space is available in the working memory and attention can be given to processing new input. This is complex cognition and O'Malley and Chamot (1990) assert that gifted language learners apply strategies when necessary having learned the strategy from earlier work:

*"We suspect that highly effective language learners transfer at least some strategies they have learned earlier on similar tasks, or combine strategies to maximize learning, and may perform these functions automatically from the onset" (p. 87).*

Their longitudinal study of strategy use highlights the level of awareness some learners have of their own strengths and weaknesses in foreign language learning (metalinguistic awareness). They point out that no clear pattern of strategy use emerges although there are apparent differences in individual students, some of whom were more successful using the same type and number of strategies during the course of a year.

Oxford (1990) produced an extended classification of learner strategies building on the work of O'Malley and Chamot (1990). Her research findings point out that professional linguists use more strategies and use these more frequently than the untrained. Also, more highly motivated foreign language learners and students who had been learning the language longer were also scoring higher on a questionnaire designed by Oxford (1986) to assess strategy use in foreign language acquisition.

As an outcome of their research, O' Malley and Chamot were encouraged to initiate instruction and a subsequent research project into strategy training after which they report that students improved their performance using particular strategies. They base their foreign language learner strategies research within the domain of cognitive theory and are critical of Oxford (1990) for providing too broad a category width. They find that effective listeners made more use of strategies and in particular the 'problem identification' strategy to help them resolve a task by recognising the central or key part of the task. Effective listeners are reportedly more purposeful, more highly motivated, able to monitor their comprehension and speech production for overall meaning and use prior general and linguistic knowledge while working on a task.

Bialystok (1990) reflects why some foreign language learners are more or less successful in their use of strategies. She concludes that the more gifted are analysing more effectively, that is they can perceive meaning from the language. Other skills include greater efficiency and accuracy of language control, by selecting from what they know effectively, thus avoiding problems. Cook (1996) points out that the use of such strategies would benefit a learner of other academic subjects. A gifted language learner may be successful in other areas of the school curriculum if they have

developed their own preference for successful learning in one area. They may be a talented or effective learner in other fields (or possess the potential) because their use of such strategies for foreign language learning has become procedural, that is, automatic. Of course, motivation will probably be contributing to the learning process at some stage. It may exert an influence on those foreign language learners who are less successful according to their performance, who in reality are neither lacking in intelligence nor aptitude. The scope for individual variation is very broad and Douglas Brown (1994) judges the categorising of foreign language learners as successful or unsuccessful as a weakness because there are so many styles and strategies operating within a learner.

Stevick (1989) describes and analyses the learning styles of seven successful foreign language learners. They are all adult learners and Stevick admits that his intention was to ascertain what the successful learners did alike so that he would be able to teach and encourage a range of strategies to other foreign language students. There is not one simple formula, and the learner experiences fitted and challenged each foreign language acquisition model. Foreign language learners rely on different types of data: visual, auditory, social, and grammatical and they respond to these verbally and non-verbally. Would a good language learner always know what type of data best suits them or only know by what they enjoy doing best? Grenfell and Harris (1999) know it is not always straightforward:

*“ It is not always easy to know what the good language learner is doing. They may not know it themselves, and therefore will be unable to tell you” (p.36).*

What is acknowledged however is that learners develop their own preferred style of learning and may be able to adapt in situations when different cognitive demands are

met. Learning or cognitive style needs to be addressed by the teacher in order to allow learners the opportunity to develop their own style and to be versatile. Learning can take place if information is presented in different ways (visual, auditory and sensory) and can be rehearsed. Tumposky (1984) comments:

*“In order to be successful, materials and methodologies should be able to accommodate different dimensions of personality and cognitive style”* (p.306)

Of more significance within the context of this research, is that there is evidently not one over-riding learning style nor characteristic present which can be guaranteed to improve foreign language performance. If there is not one clear characteristic, then one deduces that a combination of individual learner characteristics will prove to be more useful in prediction research and could identify who will be gifted language learners. There is research evidence, which precludes a single best predictor model. Ellis (1994) concludes that it is impossible to determine which is the most effective learning style because learners differ enormously in how they approach learning a foreign language and it is likely that the best learners are those who are flexible. He comments *“there are many ways to achieve success and it is not possible to draw up a single profile of the successful learner”* (p.524).

At this point it seems appropriate to state that learner strategies will not be included as a potential predictor of gifted foreign language learning and performance in this research. There are so many learner strategies and there is not a clear, consistent pattern emerging from the literature for replication in my research. The scope of this research has allowed for the discussion of a range of learner characteristics in order to select some. It is impractical and methodologically unsound to select some learner strategies and disregard others in an attempt to isolate those learner characteristics in

order to identify potential gifted language learner predictors. Instead the discussion now moves onto one particular learner characteristic, motivation, which has been theorised by Gardner (1985) as a force that has a distinct role prior to and during foreign language learning and has been referred in the earlier discussion in connection with cognitive ability and giftedness.

## **Motivation**

A discussion of motivation and attitude to foreign language learning is located in chapter two. Motivation is a characteristic, which is not fixed and can fluctuate according to the experiences the foreign language learner is exposed to. It could be said to be more dependent on personal interests and aspirations than on intellect or ability. Gardner used a technique of self-reporting questionnaires for his research. A range of motivation variables was embedded within the questions and the responses were analysed to produce general factors. His later work correlates motivation measures with achievement scores. He considers that integrative motivation, that is, the interest in the people and the culture linked to the foreign language is strongly associated with achievement. Clement, Smythe and Gardner (1978) found motivation to be a more powerful predictor than language aptitude.

For the gifted child, learning how to communicate in a foreign language may be the only motivation they need. They perceive value in learning the language and are positively motivated to become efficient communicators in order to be able to make more contact with native speakers (Integrative Motivation). This may be influenced by incremental success. Gardner (1985) has presented evidence that learners may

possess these different goals or ambitions. He describes the motivation to learn because there is perceived practical value to the learner as 'Instrumental Motivation.' Skehan (1989) describes the former as the 'Internal Cause' hypothesis and the latter as the 'Carrot and Stick' hypothesis where a learner has an inner drive or goal attached to foreign language learning, in the same way as for other school subjects. They may perceive some value in learning a foreign language for use in their future career. Another interpretation by Hermann (1980), named the 'Resultative Hypothesis' suggests that success breeds or feeds motivation. This is more complex than it first appears and provides an example of the contribution other factors can have in influencing learners. For example, the relationship between motivation and attitude is worth speculating upon. At the onset of learning a foreign language, the students may be bringing positive or negative attitudes about the language and the target language speakers. Their peers and their parents may influence them. A positive classroom experience may result in a rise in an individual's motivation levels, which with increased effort could result in a stronger chance of success. The classroom study carried out by Naiman et al (1978), found that motivation and attitude were good overall predictors of success in foreign language learning. The researchers had conducted interviews with the students and comment on their methodology thus:

*“ a brief, but carefully designed, interview with a student may indicate a great deal more about his overall attitude towards language learning, and therefore the probability of his success, than the results of an involved attitude battery”*  
(p. 146).

They also comment that attitude appears to be more important early in language learning and the role of the teacher is therefore significant in fostering and maintaining positive attitudes and sustaining motivation. Research by Chambers



(1994) into this learner characteristic reinforces the prominence of motivation within studies of foreign language learning and acknowledges that there is some difficulty in establishing a distinction between motivation for a subject and for school and learning generally. Carrying out a pilot study, Chambers interviewed small groups of pupils in three age categories to establish their attitudes to foreign language learning. The intention was to identify developmental changes in motivation after two years. Although the study used a small sample, the technique selected, that is, unstructured pupil interviews, did produce some interesting responses about pupil perceptions of the level of usefulness of learning languages, about their preference for group or paired work and dislike of reading aloud. Some of the questions focused on pupil self-esteem and the teacher's apparent expectations of the pupils, which Chambers (1994) regards as factors influencing motivation:

*“ The fact that almost all pupils feel positively about their performance in German and that they believe their teacher broadly shares their views, may have much to do with what appears to be a high level of motivation, as reflected in their responses to other questions” (p. 16).*

He conducted further research, using pupil questionnaires in four schools in Leeds and two in Kiel, Germany and interviewed the pupils two years later. The individual cognitive ability level of pupils is not known. Motivation appeared to improve amongst the older German students learning English in that they acknowledged the value and usefulness to them more explicitly. His analogy of the foreign language teacher is a striking image:

*“She is constantly walking a tightrope, endeavouring to strike a balance between pupils' ability and the amount of challenge in lesson content” (p. 72).*

By using this image, Chambers is suggesting what a rare talent a language teacher has. To be watched for gestures and expressions that can inform and amuse, and create the hushed setting for a demonstration of such panache and vigour that it captivates the listeners and keeps them in their seats. All teachers have to consider matching appropriately challenging tasks for learners of all abilities. However, there is probably not the high anxiety nor the perceived risk associated with other school subjects which pupils do express about reading aloud or answering questions in their foreign language lessons. They are doing their own balancing act and if support from parents, from high teacher expectations and to a wider extent from their own culture is not forthcoming then the foreign language learner will not extend beyond their comfort zone through to the zone of proximal development, using the spatial imagery and terminology of Vygotsky (1962). Creative tasks and activities need to balance security with challenge. The teacher provides assistance for learners to become progressively more in control of their learning and extend beyond their current level of competence. This will be explored more fully within chapter four. Tharp and Gallimore (1988) refer to teachers as role models who can offer behaviour for imitation, and the tightrope-walking teacher with the safety net conjures up a striking visual picture.

Some powerful support for investigating the role motivation plays in foreign language learning comes following a study of two hundred and seventy three undergraduate students' attitudes and interest in learning foreign languages conducted by Gruneberg and Sykes (1994), which shows that less than half derived interest from language learning whilst at school, citing difficulty in learning grammar as one demotivating factor. Yet a considerable number (one hundred and eight from a total of two hundred

and one responses) gave the perceived usefulness of acquiring a foreign language as their reason for wanting to learn another language. The subjects, undergraduate students, are assumed to be more able learners and many refer to their negative experiences at school and their lack of motivation. However, they now appear to express more positive attitudes to language learning in spite of this. As mature learners, they can separate and distinguish between the motivation for learning a distinct subject and motivation for learning in general. They can reflect on past experience and comment on the factors that had decreased their interest in foreign language learning in school. At a latter stage they became more positively motivated to foreign language learning and this suggests that motivation will is a variable that could prove to be a strong predictor of performance within this research for this thesis.

Howe (1990) presents a strong case for arguing that almost any person of normal intelligence may be capable of gaining an exceptional ability in using foreign languages, with time and concentration, single-mindedness and strong motivation. The explorer Sir Richard Burton was an accomplished linguist who learned in childhood that effort was worthwhile. Howe describes Burton thus:

*“he had gained the confidence in himself to take on linguistic tasks that most people would have found too arduous, too daunting and with insufficient likelihood of eventual success to justify the huge effort they demanded....what was most unusual about Burton as a linguist was his sheer dedication to the task. He would maintain a dogged determination to keep on struggling until he succeeded, however long that required and however much effort it took”*  
(p.178).

This is reminiscent of Leontiev (1981) who describes 'will' as a conscious act, which arises as a struggle between motives. Also of Strevens (1978), who refers to 'learning stamina', that is the ability to maintain the effort to learn over a period of time. Some learners abandon study and others persist and find a way to make the method work for them.

Dornyei and Otto (1998) have developed a Process Model of student motivation, which regards motivation as being associated with a complex mental process, involving planning, intention formation, task generation, task implementation, action control, and outcome evaluation. Some of the key components in their model include the language learner's perception of task relevance and success expectations. They provide a more detailed account of the role of motivation in foreign language learning and comment (2000) that most of the research into motivation has focused at a macro level and has only recently explored the motives underlying specific language learning tasks. Looking at task engagement, their research focuses on motivation and objective measures of language output. High status (popular) pupils "*have the floor for longer periods*", according to Forsyth (1998). They participate in a task actively and have a high level of general achievement motivation. They also report that the impact of linguistic self- confidence is considerably stronger amongst task- motivated learners. Dornyei and Kormos (2000) refer to the aspect of task-specific self- confidence or 'self-efficacy' as being particularly strong. Levine and Moreland (1990) declare that learners working in a group are more likely to participate actively and contribute to effective communication. Interpersonal relationships within classrooms may positively contribute to individual performance although here does

not appear to be much in-depth research at present into this as a learner characteristic that can influence individual performance.

A test for individual learner motivation traits in foreign language learning was selected for a prediction research in Melbourne, Australia into foreign language acquisition. The School Motivation Analysis Test (Krug, Cattell, Sweney, 1976) was designed for use in the United States to measure specific motivation traits in adolescents aged twelve to seventeen and was selected by Boyle and Houndoulesi (1994) for its construct validity. They state that it allows for variation over time and circumstances and does not suffer from respondents misunderstanding the questions, presumably because the language and style of question used is not culturally or socially biased in a way that they report is present however unintentionally in interviews, questionnaires, or learner diaries:

*"Unlike self-report inventories which suffer the problem of item transparency (Boyle, 1985a), nowhere in the SMAT are respondents requested to estimate their own motivation levels. A major advantage of the SMAT is that respondents cannot readily ascertain which constructs are being measured by the respective items, thereby avoiding the problems of faking and motivational distortion associated with item transparency" (p. 501).*

This contrasts markedly with the interview technique selected by Naiman, Frohlich, Stern and Todesco et al (1978) to investigate pupil attitudes to their own language learning. The School Motivation Analysis Test has been used as a predictor of learning in Social Studies, Science, Mathematics and English according to Boyle and Houndoulesi (1994) and the correlations are reportedly highly significant. They also refer to a large body of research (Barton and Cattell (1971, 1973), Boyle (1983,

1986a, 1987) which suggest that school learning is best predicted by a combination of variables including ability and personality and indicate that predictive values are enhanced by multiple correlation.

The test is able to provide ten primary scores, combinations of which can derive twenty subscores relating to different motivation and conflict secondary scores. These can then be collapsed into five derivative scores. Boyle and Houndoulesi (1994) hypothesised that motivation factors would account for twenty to twenty five per cent of the achievement variance associated with foreign language learning and that the derivative scores would be more reliable predictors of achievement. Also certain drives in particular: Self-sentiment, Super-ego and Assertiveness would correlate significantly, and male and female students would exhibit different patterns of motivation. The test was administered to one hundred and nine high school students and is recommended by Boyle and Houndoulesi, (1994) as an objective measure of motivation. Achievement was measured using pupil scores in Grammar, Comprehension, Written Expression and Oral Expression. Achievement scores were derived from teacher grades and this minimised the disruption of normal teaching and assessments, an important point to note if one is intending to conduct research in a secondary school.

Their results show variance at twenty percent, providing more evidence according to Boyle and Houndoulesi,(1994) that motivational factors are exerting an influence on foreign language learning. Other factors, that is, other variables, account for the remaining eighty percent.

*“Clearly, the SMAT is a useful multidimensional instrument for quantifying the contribution of motivation dynamics to academic performance” (p. 510).*

Of the three drives that they speculated would be significant predictors, results suggest that assertiveness and superego support their original hypothesis and the variables did not differ markedly across gender. The derivative scores accounted for the least amount of predictive variance and they comment that this suggests that the primary factors are more useful as predictors. The test is reliable and valid for use in other research. It could prove to be a useful measure to use within my research because it provides a comprehensive classification of a complex individual factor that could affect foreign language learning success. Although it will not prove there is a causal relationship between motivation and performance and creativity it will provide an opportunity for statistical inference and help to determine the degree of association between the other learner characteristics I have selected.

### **Personality and foreign language learning**

Other personality factors, less straightforward to isolate and measure, are now briefly discussed in the remainder of this chapter. High self-esteem appears to be a more important variable. Arnold (1999) refers to the work of Heyde (1979) who found that self-esteem correlated positively with oral performance. Naiman, Frohlich and Stern (1975) found no significant correlation between empathy and language success as measured by an imitation test and a listening test. They had already found that field independence correlated highly with language success and noted that field dependence correlates highly with empathy. Douglas Brown (1994) points out that there are methodological problems with the tests they used because they measured

personality extremes. He reports that it is not straightforward, nor accurate to describe learners as extroverted or introverted and to predict their ability to learn foreign languages based on this character judgement. Ausubel (1968) had not encountered any evidence that extroversion has a significant effect in connection with foreign language learning, nor had Naiman et al (1978) in the 'Good Language Learner' study.

Larsen-Freeman and Long (1991) refer to the research undertaken by Wong Fillmore (1982) into personality. The type of instruction received by the language learner appeared to make a difference. Shy children progressed more rapidly in teacher-led classrooms, and more outgoing children performed better in whole group activities. It is probable, according to Oxford (1999) that risk takers will not freeze up and avoid communication. They are less anxious about making mistakes, failing or being misunderstood. Rubin (1975) states that good language learners are willing to guess, willing to appear foolish in order to communicate and willing to use what knowledge they have in order to say something intelligible. Oxford (1999) adds that language learners take calculated, intelligent risks when they guess meanings based on their background knowledge and consequently they will speak in the language classroom despite the possibility of making a mistake. This is preferable to staying silent and not taking a risk at all. She also reports that research into competitiveness and anxiety suggests that foreign language learners will be less successful if they compare themselves with others or worry about how others will judge them. She refers to the outcome of interviews conducted by Young (1992), who asked four foreign language learning experts about their views regarding learner anxiety. They responded quite differently. For example, one suggested that a positive or helpful type of anxiety



exists all the time. A second commented that some tension might be helpful but refused to label this as anxiety, the third preferred to call this tension 'attention', not anxiety. The fourth asserted that there is no helpful aspect to anxiety, anxiety should be non-existent but it might be helpful in formal learning situations. I do not see major disagreement in the existence of an anxiety factor, rather in how it is labelled and its function in language learning. This supports the comment made by Ellis (1994) that some personality factors are not fully theorised nor is their role in foreign language learning clarified:

*"the personality variables constitute a very mixed bag. Some relate to well-established theories of personality (such as extroversion / introversion) but have been investigated without reference to the theory from which they have been drawn. Others are based only very loosely on constructs in general psychology (for example, risk-taking) ...the variables are sometimes vague and overlap in ill-defined way" (p. 517).*

He adds that those tests, which have been selected to measure these personality variables are varied and in some cases are of doubtful validity and reliability.

More gifted foreign language learners are able to cope better in situations including tests, where they may be anxious but they can draw on other strategies or characteristics as backup. Their self-esteem must be high and their attitude to the foreign language positive to enable them to cope with unfamiliar words and sounds, to try communicating and learn from rather than be anxious about making mistakes. These factors may be related and the discussion of James' (1950) definition of self-esteem by Andrews (1998) does support the view that the value we place on a particular domain does affect how we perceive ourselves performing within it:

*“A global sense of self-esteem is derived from evaluations of ability or success in domains of personal importance- those areas in which we have aspirations to succeed. Success in areas of little personal importance will have scant impact on global self-esteem” (p. 339).*

Applying this in a classroom context, a gifted, successful language learner according to the research reviewed, is generally intelligent, possessing an aptitude for language, well motivated and aware of how they learn. They will probably be able to demonstrate their potential in the appropriate setting in class and or in assessment. Conversely, a pupil who does not value foreign language learning, subsequently lacks motivation (and consequently underachieves) and would progressively demonstrate a negative attitude to language learning. Adolescence and peer pressure may be contributing or moderating behaviour. A negative attitude may over ride general intelligence and aptitude, which may become redundant. Kernis et al (1993) note the effect of feedback on self-esteem. Putting this within the framework of foreign language learning, this suggests a gifted language learner might express a preference for certain tasks or activities but would tolerate something less enjoyable and accept failure if it is presented reasonably. If the primary motivation is to succeed as a foreign language learner then the feeling of self-worth, that is, the level of self-esteem will remain intact.

Attitude to learning, associated with self-esteem and motivation are the individual factors which teachers try to foster within the foreign language classroom. There is opportunity within the scope of this research to explore individual attitudes to foreign language learning using a test instrument, designed for this research, which

incorporates factors substantiated by evidence from foreign language learning prediction research.

This chapter has identified from a literature review, that there is a range of individual learner characteristics that play a part in gifted foreign language learning and performance. Some general learner characteristics (cognitive and affective) relate to successful foreign language learning, and these have been discussed from the fields of cognitive psychology and gifted education, and foreign language research, particularly the Good Language Learner Study (Naiman et al. 1978). The summary table 3.1 for this chapter presents the major studies and highlights the individual learner characteristics indicated by specific research as contributing to foreign language learning and effective foreign language performance. The learner characteristics associated with good language learning are: cognitive ability, memory, language aptitude, motivation and attitude and learner strategies.

The individual learner characteristics in bold also occur regularly in Table 2.1 in chapter 2 on pp.75-76 (Summary of foreign language learning theories and models) and in Table 2.2.p.101 (Summary of giftedness models). Table 3.1 helps to trace a common thread through this enquiry, namely, focusing directly on those characteristics, which can contribute to foreign language learning for all abilities, those which support general gifted performance, and those which are associated with effective foreign language learning. This has resulted in a slight narrowing of the field in terms of the range of learner characteristics to a reduced number of variables that could be feasibly researched by me and at the same time a sharpening of the focus to present the selected individual learner characteristics more vividly in a meaningful,

manageable and measurable form. To use a photographic analogy, the camera lens has changed from a wide-angle for a panoramic shot, to a microscopic lens for close-ups.

The purpose of the next chapter is to synthesise this outcome into specific research questions and a framework for conducting research for this thesis. A further chapter will be devoted to methodology and will outline research procedure in more depth.

**Table 3.1 Summary of individual learner characteristics associated with good language learning.**

INDIVIDUAL LEARNER CHARACTERISTIC	RESEARCH EVIDENCE	DESCRIPTION
<b>Memory</b>	Jones 1991 Olson 1973  Logie 1999	Most often mentioned in Cambridgeshire teacher survey. Short-term memory correlates poorly with foreign language learning. Capacity improves with maturity and linguistic processing. Accurate sound retrieval, linked to speech system
<b>Tolerance of ambiguity</b>	Naiman et al 1978	The learner does not feel threatened by or nervous of the new language and culture.
<b>Field independence</b>	Naiman et al 1978	The learner can focus on a task in an unfamiliar context and attend to cues appropriately.
<b>Learner attitude</b>	Wiegand 1992	Perception of the value of language and cultural learning influenced by parents and society
<b>Cognitive ability</b>	Lightbown & Spada 1993 Davis & Rimm 1999	Intelligence is more directly related to written and reading tasks.  Advanced cognition supports advanced language skills.
<b>Savoir etre / Savoir apprendre / Savoir / Savoir faire</b>	Zarate 1997	Linguistic and non-linguistic inter-cultural skills favour the learner in a natural setting
<b>Linguistic competence</b> Strategic (socio-cultural) competence	Salter 1989	Communication skills Compensation and communication strategies
<b>Language aptitude</b>	Carroll 1973	Independent of motivation and verbal intelligence, involves memory, pattern recognition and processing
<b>Learner strategies</b>	Rubin 1987 O'Malley & Chamot 1990 Oxford 1990	Classification includes: risk taking, tolerance of ambiguity (see Naiman et al), communication and social strategies. Metacognitive, cognitive and socio-affective strategies described within processing framework. Highly motivated learners use more strategies.
<b>Motivation</b>	Gardner 1985  Chambers 1994 Dornyei & Otto 1998	The desire and effort involved in learning a foreign language either for practical reasons (instrumental) or for a need to communicate effectively with native speakers (integrative) Motivation improved amongst older learners. Importance of learner perception of task relevance and success expectations.

## **Chapter Four: Establishing a research framework**

The literature review in chapter two revealed a number of cogent foreign language learning theories and research findings that have been influential and are conceptually broad to yield research questions. Theories from the gifted education field extended this discussion in chapter three and accentuated the characteristics of gifted foreign language performance.

The purpose of this chapter is to combine the pertinent theories, models, research findings and methodologies that have stimulated interest into a theoretical framework, which sets out a more formal research context with pertinent research questions to enable a more detailed analysis of the individual learner characteristics which support foreign language learning.

### **Foreign language learning theories**

Linguistics theories of foreign language learning which generate discussion of the process of how a foreign language is learned and do not explain individual variation cannot underpin a theoretical framework for my research questions. For example, the Universal Grammar theory (Chomsky, 1976), hypothesising the existence of a common, in-built capacity to learn language, including foreign language, which was explained in detail in chapter two, does not account for individual learner differences. Indeed, Towell and Hawkins (1994) comment that Universal Grammar has something interesting to say, yet little to say about variability “*It does not seem to be in a position to offer an explanation for the source of such variability*” (p.150). Similarly,

the Krashen Monitor Model (1985) refers to the 'affective filter', a subconscious processing mechanism which screens incoming language for the individual learner and either enhances or impedes their progress according to their needs, motives and emotional state. However, Krashen's hypothetical references to anxiety, self-esteem and motivation, the affective behaviour characteristics, provoke criticism from Mitchell and Myles (1998) because they believe that the Monitor Model does not provide a suitable explanation for how individual 'receptivity' alters the learning level. Therefore its application is limited because it is difficult using the Monitor Model to show which individual learner characteristics cause differences in foreign language learning performance.

Although these theories do not explain individual variation in foreign language performance, they are important to note because they reveal the linguistic and non-linguistic factors, which contribute to foreign language learning.

### **Gifted foreign language learning performance**

Interestingly, the review of literature from this field outlined in chapter three, exposes the shift in focus away from language or foreign language learning to an emphasis onto the foreign language learner and a generalisation that both linguistic and non-linguistic factors will influence foreign language learning. There is evidently demonstrable variability between and within individual learners according to Ellis (1984) and research into individual learner differences includes cognitive ability, language aptitude and non-cognitive or affective behaviour as the broad range of

individual learner characteristics, which appear to contribute towards good or gifted foreign language performance.

Some studies highlight those characteristics which, according to results, are considered more significant and could act as predictors of gifted performance. In addition, other research supports the use of particular measures of learner characteristics as predictors. Gardner and MacIntyre (1992, 1993) usefully divided individual learner characteristics into two groups, firstly cognitive, and secondly, those which are emotional (affective). Cognition accounts for all learning, with the mind geared to processing all kinds of information. A foreign language acts as a more specialised and complex type of linguistic information. Affective characteristics include the individual attitudes and motivation of the foreign language learner and these can impact upon learning effectiveness in a foreign language setting. This labelling of learner characteristics will be used within this research to distinguish the traditional academic information processing characteristics from those associated with personality and emotional behaviour. The latter are complex and not straightforward to manage.

The initial difficulty that researchers in this field have had is in being precise about the conscious and unconscious orientations individuals may possess towards foreign language learning according to Naiman, Frohlich, Stern and Todesco, (1978) Brown (1986), Gardner (1985), Schumann (1978), O'Malley and Chamot (1990).Lightbown and Spada (1993) explain:

*“it is not possible to directly observe and measure qualities such as aptitude, motivation, extroversion, or even intelligence. These are just labels for an*



*entire range of behaviours and characteristics. Furthermore, because characteristics such as these are not independent, it will come as no surprise that different researchers have often used the same labels to describe different sets of behavioural traits” (p.35).*

This is actually beneficial because a broad range of learner characteristics has been identified by them and explored in connection with individual differences in achievement and potential. These include cognitive ability, memory, language aptitude, attitude to language learning, motivation, personality, age and learner strategies. However, time constraints dictate that it is not feasible to attempt a comprehensive study of all of the individual learner characteristics which were revealed in the literature review and as a consequence only a selection of learner characteristics have been appropriated. These include: cognitive ability, memory, language aptitude, motivation and attitude.

### **Rationale for individual learner characteristics selected for research**

Firstly, I propose to examine the learner characteristics, which relate to a measurable outcome of foreign language knowledge ordering or processing. This emphasis can be traced back to the discussion in the literature review in chapter two, which considers how a foreign language is learned and the role of cognition, memory and language aptitude as individual learner differences. I also plan to incorporate learner characteristics, which acknowledge the role of individual learner behaviour. This provides a focus that is both on cognitive and affective learner characteristics. The cognitive learner characteristics I have selected are: cognitive ability, memory and language aptitude. The affective learner characteristics are: motivation and attitude to

foreign language learning. These are chosen and discussed with a view to carrying out research within the formal learning setting of the secondary school where I teach. Discussion of each selected individual learner characteristic generates research questions, which are presented in each section where appropriate.

## **Cognitive learner characteristics**

The discussion will now consider the cognitive learner characteristics of cognitive ability, including giftedness as an advanced form of cognition, short term memory and language aptitude.

### **1: Cognitive ability**

Cognitive ability frequently appears in foreign language learning theory and the literature review demonstrates it is widely considered to have a contributory influence on gifted foreign language performance. It could then be expected to have a role as a strong predictor of gifted linguists. A large body of research into cognitive ability as an individual learner characteristic contributing to foreign language performance is headed by Carroll and Sapon (1959), who found intelligence to be a good predictor and who also point out that the power of cognitive ability tests does not vary significantly over time. This is a salient point when searching for a stable measure of a learner characteristic. Cummins (1980) refers to verbal ability in the first language aiding foreign language learning. His 'Cognitive Academic Language Proficiency' model suggests that a more superior cognitive ability would assist in making foreign language input more comprehensible. Larsen Freeman, and Long (1991) stress the

role of cognitive and linguistic variables in foreign language learning. Lightbown and Spada (1993) refer to increased intelligence levels in the foreign language learning setting and Davis and Rimm (1998) link advanced cognition with advanced language skills. Porter (1999) refers to the gifted learner possessing neurological and intellectual processing characteristics. Cognitive ability and memory are general individual learner characteristics, not specific solely to learning foreign languages and not affected by the teacher according to Cook (1996). They are neuro-psychological characteristics which relate to how the brain processes information, in this instance foreign sounds, grammar, syntax and speech forms. There is variation between individuals and Mitchell and Myles (1998) point out that the more able generally do well at learning a foreign language:

*“Students who are above average on informal measures of intelligence and or general academic attainment tend to do well in L2 learning” (p.18).*

Cognitive ability includes both verbal and non-verbal reasoning ability. Gifted foreign language learners, according to the literature review, can be expected to demonstrate a range of individual differences in behaviour and learning. Some of these individual learner characteristics will be selected for use within this research and the research questions set out may be able to ascertain more precisely which of those selected learner characteristics are indeed reliable predictors of gifted foreign language performance and creativity when using a foreign language.

## **2: Giftedness**

The giftedness models in chapter 2 (p.100) support the role of intelligence as a critical component of giftedness and in any academic sphere giftedness always seems to

involve intelligence plus some other factors, both cognitive and affective. This is exemplified by Renzulli's Three Ring Model (1979), which itemises an above average cognitive ability, high task commitment (motivation) and a high level of creativity as important factors and Sternberg (1997) asserts that the learner has to demonstrate gifted behaviour as an outcome of learning in order to be identifiably gifted in his Triarchic Intelligence Model.

Gifted foreign language behaviour is no exception. Gardner (1983) includes linguistic intelligence as a discrete talent or gift in his Multiple Intelligences model. Linguistic intelligence involves the use of language in spoken, written and signed forms and can be combined and adapted with other autonomous intelligences including: logical-mathematical, spatial, musical, bodily-kinaesthetic, interpersonal and intrapersonal domains. Applying the generally accepted definitions of giftedness to the foreign language learner, Bialystok (Bi-dimensional model 1983, 1985, 1988) asserts that learning a foreign language well requires knowledge of rules and needs practice and the subsequent acquisition of knowledge leads to competence. Reference is made to variability and the effect of internal and external factors on cognitive restructuring leading to more and better analysed knowledge. Pienemann (Multi-dimensional Model 1984,1988) declares that there is individual variation in cognitive processing contributing to variability of foreign language performance along a common developmental route to learning.

Earlier research into child psychology undertaken by Piaget, (1950, 1970) refers to cognitive ability as the ability to verbally manipulate relationships between ideas in the absence of prior knowledge, supporting a theory that concepts are grasped from

verbal rather than concrete experience. Variations in cognitive ability, verbal and non-verbal reasoning will influence the rate and depth of learning. According to Ellis (1990), Piagetian cognitive theory views language learning as a complex skill, which like other such skills, involves the use of various information-processing techniques to overcome limitations in mental capacity which inhibit performance.

In contrast, Vygotsky (1962) asserts that cognitive development is social, and the role of language is fundamental particularly when tackling a new task. He comments that *“the influence of scientific concepts on the mental development of the child is analogous to the effect of learning a foreign language, a process which is conscious and deliberate from the start”* (p.180). Vygotskyian theory applied to the foreign language classroom suggests that to execute a task effectively, the foreign language learner may have to articulate their inner private speech as a ‘tool of thought’ or they may require ‘scaffolding’ from the teacher or peer group until the new knowledge becomes ‘automatic’. At this stage, the learner becomes less conscious of the cognitive activity required by them to complete a foreign language task. The gradual shift from conscious thought to self regulation of their foreign language output is an indication of foreign language learning and individual variations in performance will result. Gifted learners appear therefore to be able to outperform others because they display certain traits and can present a product that is significantly more skilful than that of their peers. Kanevsky (1992) explains that this is as a result of a wider ‘zone of proximal development’, in a gifted child, which is why they can learn more. In the context of this research, a foreign language written and oral task could provide opportunities for pupils to be creative with the language they know and use it in a uniquely original way. Automatised (prior learning) foreign language knowledge and

skills would enable them to present the foreign language in the form of dialogue. This task would encourage independent language output. Swain (1985) comments that the effort to compose will force language learners to try out new language hypotheses. She considers it more likely that learners would acquire new syntax from initiating their own output than from trying to make sense of input from another. This contrasts with the Krashen (1977) hypothesis (see pp.44-45) that comprehensible input leads to intake and monitoring and language acquisition takes place incidentally. If pupils cannot function without support, teacher assistance (scaffolding) could guide them towards a desired outcome. My intention is to present a task which directs pupils to create language for a dialogue and attempts to encapsulate the theory of ZPD (Zone of Proximal Development), the domain where a pupil is not fully independent but can achieve with scaffolded support. Vygotsky (1978) introduced this via his socio-cultural theories of child development and his definition of the ZPD asserts it to be:

*“the difference between the child’s developmental level as determined by independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers”(p.85)*

Assessment of the creative output from a group of language learners could ultimately result in using the task as a tiered assessment of written and oral creative output. Within the context of this research this would require task construction and an assessment mechanism which will be presented as the measure for creative production using a foreign language and this may become a tool for identifying the good language learners of the future or confirming the potential of those pupils who demonstrate a talent for language.

The research questions below summarise the key areas of interest:

### **Research questions**

- Do measures of verbal reasoning (cognitive ability) predict foreign language performance?
- Does verbal reasoning predict creative foreign language production?
- Does non-verbal reasoning, predict foreign language performance?
- Does non-verbal reasoning predict creative foreign language production?
- How can creative production in foreign language use be quantified?

### **3: Short-term memory**

Memory is described by Gardner and Lambert (1972) as a 'higher cognitive skill' which aids an individual foreign language learner in the quest for making sense of new information, namely sounds, words and speech forms. Carroll (1965) describes memory more precisely in a foreign language learning context as auditory phonetic coding ability. The ear and the brain are involved in enabling an individual to hear differences between sounds and associate these with symbols. Sounds are repeated aloud by a learner to keep this information in the short-term memory for longer. Cook (1996) comments that foreign language learners' limitations are "*caused just as much by memory limits as by the difficulty of syntax on, vocabulary and so*" (p.69). The Cambridgeshire Foreign Language teacher survey conducted by Jones (1991) reported that 'good memory' is an important tool for a good linguist and this qualitative research together with the cognitive efficiency research outlined below does present a

good case for including short-term memory as a further learner characteristic now to be more accurately defined as ‘auditory short term memory’.

Variations in individual cognitive efficiency, as a result of the differences in the power or speed of short term or working memory is an area of neuro-science currently receiving attention from researchers in both the linguistic and gifted fields who are interested in exploring individual variance in cognitive efficiency and how it can influence individual foreign language performance. Perleth (1993) focuses on cognitive efficiency as one important factor and stresses that it is the speed of this efficiency, assisted by the short-term memory, which results in individual learner differences. Logie (1995) prefers the term ‘working memory’ in his research into verbal temporary memory using digit span differences in relation to foreign language learning. *“Digit span is language specific... Longer words take longer to rehearse”*. (p.176). The contribution of his research findings into working memory, using a range of foreign languages, reflects an increasing interest in cognitive neuro-science particularly in the neural functions associated with learning. Memory may be a contributory factor in individual differences in gifted performance within the foreign language learning field. Logie adds that a study of working memory is a *“serious and useful scientific concept for understanding the nature of our cognition”* (p.178).

Other individual differences include short-term memory capacity, which varies between learners. Anderson (Adaptive Control of Thought Theory 1983, 1985) links this to the incremental nature of foreign language learning. An impaired short-term memory transfer to long-term memory could result in reduced skill level in the foreign language. Brown (1994) points out that successful learners will use both



visual and auditory input to enhance learning, and it is noted that short-term memory does not correlate particularly well statistically with foreign language learning. There is no evidence that short-term memory capacity can predict gifted linguists. Yet, McLaughlin (Information Processing Model 1987,1990) contests that processing information from controlled to automatic knowledge does result in learner differences which supposes that foreign language learning is not possible for all learners. True learning can be demonstrated by automaticity according to Geake (2000). Early foreign language learning is controlled and restrained by short-term memory. A test of cognitive efficiency to explore memory constraints may highlight those pupils with restricted foreign language learning capability, and could identify those learners with less constrained short-term memories, who may become the gifted foreign language learners of the future.

### **Research questions**

- Does memory contribute significantly to foreign language learning?
- Would a measure of memory be useful as a predictor of foreign language performance?
- Do memory and motivation combine as predictors?

### **4: Language Aptitude**

Language aptitude is a compound learner characteristic incorporating a range of linguistic skills, and is aided or inhibited by individual differences in cognitive ability, memory and motivation. The debate about what constitutes aptitude and whether it is

innate and fixed or influenced by the environment was referred to in the literature review. Language aptitude has been measured extensively and it may be productive to look as answering some of the recommendations made by Skehan (1989) regarding the usefulness of some of the foreign language aptitude tests. It is interesting to speculate whether a test for foreign language aptitude is really all that is required as a predictor for future performance in speaking and writing a foreign language. Larsen Freeman and Long (1991) refer to Skehan (op.cit.) who asserts that aptitude may be a *“more powerful predictor of language learning success than intelligence”* (p.172). Foreign language aptitude is *“relatively fixed over long periods”* and *“relatively hard to modify”* (p.86) suggests Carroll (1981). Accordingly it is a critical learner characteristic in foreign language learning research because variations between individuals in their capacity to process language would suggest that some foreign language learners possess greater aptitude. At the same time little variation within individuals over time would strengthen the value of an aptitude measure as a predictor of future achievement.

Much research within the linguistics field has highlighted the important role of foreign language aptitude as a specific learner characteristic that can have a measurable effect on foreign language performance. It can best be described as an innate predisposition to language and can be measured and applied to foreign language learners who appear to possess a sensitivity for language, heightened by short term memory. Tangherlini and Durden (1982) divide verbal talent into five categories including oral expression, reading, foreign language, creative writing and general verbal reasoning. They suggest that the ability to imitate dialects in the native language is a means of identifying early those individual learners who may have a

talent for foreign languages. However, a more conventional means of predicting foreign language potential is using the Modern Language Aptitude Test, which was designed originally by Carroll and Sapon (1959) and recently revised in 1997. Carroll and Sapon (1959), Pimsleur (1966) and Green (in the University of York study, 1975) refer to components other than intelligence such as personality, motivation, auditory alertness, rote memory learning and sound-symbol association ability that make up the individual learner characteristic described as foreign language aptitude. Gardner and MacIntyre (1992) state scores from the Modern Language Aptitude Test (Carroll and Sapon, 1959) correlate with achievement in a foreign language. Cook refers to memory-based aptitude and language-based aptitude: *“Students do well if they have both attributes but they also do well if they have either of them”* (p.102). I intend to include foreign language aptitude within my selection of individual learner characteristics of interest, and this decision is based upon the wealth of research findings from the literature review, which suggest it to be a highly significant predictor of future gifted foreign language performance. In addition, one consequence of its longevity in the language learning field as a probable characteristic of significance is the range of good quality foreign language aptitude tests available to teachers which may act as empirical tools in the context of this research.

### **Research questions**

- Do language aptitude tests predict pupil performance in modern foreign languages?
- Do language aptitude test predict creative production in a foreign language?

- Which test instrument is the better predictor? (Modern Language Aptitude Test or the York Test)

Cognitive ability, short-term memory and language aptitude are the individual learner characteristics that a foreign language learner actually has little control over. Yet they are not the only influences operating on the individual learner. Research from the gifted education field suggests a range of individual characteristics may predispose a learner towards gifted behaviour. Howe (1990) supposes that all learners cannot possess giftedness. Heller (1989) qualifies this by summarising the giftedness trait as *“individual cognitive and motivational potential for – as well as social and cultural conditions for achieving excellent performance”* (p.49) which is a broad definition signalling the importance of both cognitive and non-cognitive factors affecting future performance. He considers the use of both intelligence and creativity predictors as qualitatively better indicators of achievement. The discussion now moves to consider affective learner characteristics.

### **Affective learner characteristics**

Research findings from the psychology and socio-cultural fields have highlighted other less stable contributory characteristics, which appear to be accounting for individual differences in performance in conjunction with variations in linguistic and cognitive ability and processing. It is the range of affective factors and their interaction with each other that has generated much interest. The Good Language Learner Model based on the research findings of Naiman, Frohlich, Todesco and Stern (1978) is one well respected and widely referenced investigation into interactions between variables

which may operate favourably for gifted linguists. They suggest which learner characteristics are likely to be potential indicators of foreign language achievement. Firstly, field independence, which affects the way a learner perceives the world, secondly, tolerance of ambiguity, and finally attitude and integrative motivation correlate most strongly with linguistic competence according to their results. Their research provides evidence of the range of influences on foreign language learning success. Their findings underpin my decision to quantify characteristics as variables and to explore the interaction between variables. This will require the collection of learner data and a mechanism for processing it and carrying out some form of analysis.

## **Motivation**

Motivation is selected as a general learner characteristic, which relates to short and long term learning tasks and as a learner characteristic which may be influenced more specifically by cultural attitudes towards foreign language learning and by success in the language classroom. Skehan (1989) supports the view that it has some place in individual difference research and comments "*it seems that at least some of the time motivation has an independent causative role*" (p.67) and is associated with foreign language performance. Ellis (1994) further reinforces its contribution and commends its inclusion as a learner characteristic within research as a powerful predictor of foreign language achievement.

It is important to remember at this point that some researchers distinguish between motivation and attitude in their discussion of individual affective (emotional) learner characteristics. The former is associated with goals and Gardner (1993) defines it as

the *“desire to achieve a goal, effort extended in this direction, and satisfaction with the task”* (p.2). The role and influence of motivation and attitude in foreign language learning is discussed by Gardner and Lambert (1972) and by Gardner (1985) who identifies instrumental and integrative motivation, as different learner orientations towards foreign language learning. He explores the link between integrative motivation (learning with a positive attitude to the target language community) and aptitude and success. He stresses the role of motivation in foreign language excellence which Geake (2000) sums up as *“we learn best what we care about”* (p.7). A particularly useful research tool if it could be obtained and investigated for its suitability within the scale of this research, is the School Motivation Analysis Test. Boyle and Houndoulesi (1989) administered this multi-component measure of motivation and pronounced it sufficiently robust and reliable as a measure that might prove to be a consistent and reliable predictor of foreign language performance. Some foreign language learners may perform better because they are more motivated to do so. They are interested in the task and may want to get involved in the lesson. Or they may look for opportunities in class and in their holidays to use the target language and learn more of the culture. Motivation may thus be a stable learner characteristic, which could be measured and its influence on foreign language performance in foreign language learners could be scrutinised more closely. Attitude to learning a foreign language is related to motivation because it is based within the individual's sense of self and their identity and place within their own social group. Learners may possess positive or negative attitudes towards other language and cultural groups and this in turn will affect and impact upon their motivation or desire to learn a foreign language. A more detailed discussion of learner attitude to foreign languages distinguishes these two affective learner characteristics more clearly.

## **Research questions**

- Does motivation contribute towards foreign language learning?
- Would a measure of motivation be a reliable predictor of creative production in using a foreign language?

## **Attitude**

Pupil attitude to foreign language learning is the second affective learner characteristic of particular interest to me. It is more transitory in nature than cognitive ability, varying within learners, fluctuating according to external influences such as the home and school environment, and the local and wider community. Pupil attitude to learning foreign languages is a characteristic that a learner has a degree of control over. Schumann (1978) and Brown (1980) conducted research into foreign language learners' attitudes towards a foreign language and to the native speakers who use it. (p. 75) They refer to the phenomenon known as 'social distance', which I believe is compounded by the status of the English language for native English speakers. Schumann's (1978) Acculturation Model of Social Distance attempts to account for a foreign language learner's relationship with the target language group. A foreign language learner passes through a series of stages from early foreign language learning enabling one to function in another culture, yet keeping one's own identity intact. The latter stages reflect an assimilation or adoption of a new culture or conversely the preservation of one's own and a rejection of the new. If the model is applied to a group of foreign language learners, it is expected that those who perceive a social distance from native speakers will not learn the foreign language well as a

result of their (negative) attitude to the native speakers and the foreign language. I believe attitude and motivation combine as individual learner characteristics for English language native speakers who perceive a lack of individual need to learn if personal and cultural expectations do not extend to learning a foreign language. Indeed Gardner (1985) asserts that the attitude and motivation learner characteristics are inter-related in his socio-educational model, which is multi-factor and demonstrates that a combination of learner characteristics will result in foreign language success. Spolsky maintains:

*In a typical language learning situation, there are a number of people whose attitudes to each other can be significant: the learner, the teacher, the learner's peers and parents, and the speakers of the language. Each relationship might be shown to be a contributing factor controlling the learner's motivation to acquire the language" (p.237)*

Gardner summarises that attitude can account for a significant and meaningful proportion of the variance in foreign language achievement and Lightbown and Spada (1995) refer to "*overall findings show that positive attitude and motivation are related to success in second language learning*" (p.39).

Conversely unsuccessful foreign language learners may attribute their poor performance to the nature of the task set and thus their inability to make progress. A learner may alter his or her opinion towards foreign language learning based upon the outcome of prior learning in a formal setting. This outcome would maintain social distance from the target language and its community. McLaughlin (1987) comments that attitude and linguistic success are bi-directional and acculturation is linked:



*“Most likely the line of causality (attitude-second language acquisition) is bi-directional. Perceived distance affects second-language acquisition and is affected by success in second-language acquisition” (p.126-7)*

Byram (1994) amplifies this and implies that a gifted foreign language learner will accept or assimilate into another culture, whereas poor linguistic learning may be an indicator of non-acceptance of the target culture. Zarate (1997) has described the skills of foreign language learning and their application in the field as ‘inter-cultural skills’, which are both linguistic and non-linguistic and are effectively a demonstration of cognitive and affective individual traits at work, combining effectively and productively for the foreign language learner. (p.151). The combined effect of learner characteristics is a more realistic and holistic reflection of learner behaviour and the interaction of motivation and attitude and their relationship with foreign language performance has been noted by Chambers (1994). A survey of foreign language learner attitudes could suggest that social distance exerts an influence on foreign language performance in the learning setting where the research will be conducted. Possessing a positive attitude to foreign languages and cultures could be associated with motivation. Indeed Mitchell and Myles (1998) comment that research into attitudes to foreign language learning *“has largely been conducted within the framework of broader research into motivation, of which attitudes form one part.”* (p.19). An examination of attitude within the literature review did not unearth a measure, which could be considered as a possible tool for use within this research. As a consequence there will be a need to design a measure, hence the research question below pertaining to methodology.

## **Research questions**

- Does a positive pupil attitude towards learning a foreign language contribute towards performance in foreign language learning?
- Does a positive pupil attitude towards foreign language learning contribute towards creative production in using a foreign language?
- How can pupil attitude be quantified to create a measure?

## **Multiple learner characteristics**

An additional area of enquiry examines the probability of multiple learner characteristics affecting gifted foreign language learner performance. Individual learner characteristics can be observed in action and their strength and dominance assessed, however it is very unlikely that only single characteristic is at work in a learner at a given time. It is my intention to identify and examine the combination of individual learner characteristics, which can boost gifted and creative foreign language performance in the foreign language classroom setting and could be reliable predictors of gifted and talented linguists.

## **Research questions**

- Which individual learner characteristics consistently predict performance and creative foreign language use?
- Are there any individual learner characteristics, which are reliable predictors of foreign language performance if combined with other learner characteristics?

It is expected that a cluster of characteristics are operating and that they are not independently exerting some influence on gifted performance. They work in combination and Gardner and MacIntyre (1993) present a strong case for this, insisting that there is no value in exploring learner traits in isolation because they appear to interact or inter-relate with each other and their combined power or effect may influence gifted foreign language performance. In practice, Zarate (1997) refers to the combination of linguistic and non-linguistic factors at work in foreign language learners (p.121). Long (1985) and Carroll (1965) provide additional encouragement and refer in particular to the relationship between intelligence, aptitude and motivation. Long studied instructional factors and individual differences and explored the relationship between variables such as time and instructional excellence, intelligence, aptitude and motivation.

A model proposed by Skehan (1986), called the Disjunctive Model is an approach that reflects variations in learner characteristics referred to as variable power. This model is relevant because it does not assume linear relationships between variables. It suggests that individual foreign language learners achieve along different routes, dependent on “*different configurations of abilities*” (p.8), which contribute to their learning success.

Lightbown and Spada (1993) support this “*Learner characteristics are not independent of one another: learner variables interact in complex ways*” (p.50).

It is evident from this discussion that learner characteristics are not independent of each other and may in fact work together. A combination of best predictors of

language learning could be more valid and reliable than a single predictor. Indeed, Green (1975) and Skehan (1989) indicate that a number of learner characteristics correlate with performance and creative production and that the use of a single predictor could disadvantage pupils. The relationship these characteristics may have singly or in combination with creativity and performance in foreign languages could produce a profile of the skilled foreign language learner, with a common or uniquely individual array of learner characteristics present. In other words, some learner characteristics may play a more significant role in contributing to the performance of every individual learner and over time there may be variability in the magnitude of any learner characteristics that do remain constant. In order to explore the relationships between learner characteristics it becomes necessary to identify those research tools, which can quantify and measure each of the learner characteristics and ultimately produce data for analysis.

The research questions originating from this synthesis of the literature reviews are presented in full to indicate the range of learner characteristics selected for research for this thesis. Having identified these, a theoretical framework can now be presented in order to highlight the origin of each research questions and to locate the theories within the future research, the purpose of which is neither to advocate a new approach to teaching foreign languages nor to generate another theory of how foreign languages are learned, but to find out whether or not it is possible to predict gifted performance in foreign language learners using a number of measures of individual learner characteristics.

## Research questions

- Do measures of **verbal reasoning** (cognitive ability) predict foreign language performance?
- Does **verbal reasoning** predict creative foreign language production?
- Does **non-verbal reasoning** predict foreign language performance?
- Does **non-verbal reasoning** predict creative foreign language production?
- How can (**creativity**) creative foreign language use be measured?
- Does **memory** contribute significantly to foreign language learning?
- Would a measure of **memory** be useful as a predictor of foreign language performance?
- Do **memory** and **motivation** combine as predictors?
- Do **language aptitude** tests predict pupil performance in modern foreign languages?
- Do **language aptitude** tests predict creative foreign language production?
- Which test instrument is the better predictor? (MLAT or York)
- Does **motivation** contribute towards foreign language learning?
- Would a measure of **motivation** be a reliable predictor of creative production in foreign language use?
- Does a positive **pupil attitude** towards learning a foreign language contribute towards performance in foreign language learning?
- Does a positive **pupil attitude** towards foreign language learning contribute towards creative production in using a foreign language ?
- How can **pupil attitude** be quantified to create a measure?

- Which individual learner characteristics consistently predict performance and creative foreign language use?
- How can **creativity** in foreign language use be measured?
- Are any individual learner characteristics reliable predictors of foreign language performance if **combined** with other **learner characteristics**?

Table 4.1 presents the range of learner characteristics appearing to exert some degree of influence on gifted foreign language performance: cognitive ability, short-term memory, language aptitude, motivation and attitude. These are embedded into research questions, which are supported by the relevant theories and research models within a gifted foreign language learning context, integrating both foreign language learning and giftedness theories from chapter two. Additional research questions refer to the concept of creativity and its use as a measurable learner characteristic within a classroom based task setting. The presence of multiple learner characteristics that combine as predictors of gifted foreign language performance is also considered. Table 4.1 presents the theoretical foundation underpinning the research in this thesis.

The research questions are data generating and signal that the direction to be taken will involve the selection of appropriate research methodologies. The next chapter will initially outline the research philosophies and approaches available to a social scientist intent on examining individual learner characteristics in the domain of gifted foreign language learning.

**Table 4.1 Theoretical framework to locate empirical research questions.**

<b>Individual learner characteristic</b>	<b>Theorist/Researcher</b>	<b>Theory /Model/ Research Tool</b>	<b>Research Question</b>
Cognitive ability	Cummins (1980)  Gardner (1985) Bialystok (1983,85,88) Pienemann (1984)	Cognitive Academic Language Proficiency Multiple Intelligences Bi-dimensional Model Multi-Dimensional Model	Do measures of <b>verbal reasoning</b> predict foreign language performance? Does <b>verbal reasoning</b> predict creative foreign language production? Does <b>non-verbal reasoning</b> , predict foreign language performance? Does <b>non-verbal reasoning</b> predict creative foreign language production?
Creativity	Vygotsky (1962)	Zone of Proximal Development	How can <b>creative</b> foreign language use be measured?
Short term memory	Anderson (1983,85) McLaughlin (1987) Logie (1995)	Adaptive Control of Thought Theory Information Processing Model Working memory and digit span	Does <b>memory</b> contribute significantly to foreign language learning? Would a measure of <b>memory</b> be useful as a predictor of foreign language performance? Do <b>memory</b> and <b>motivation</b> combine as predictors?
Language aptitude	Naiman, Frohlich, Todesco, Stern (198)  Carroll & Sapon (1959) Green (1975)	Good Language Learner Model  Modern Language Aptitude Test University of York Language Aptitude Test	Do <b>language aptitude</b> tests predict pupil performance in modern foreign languages? Do <b>language aptitude</b> tests predict creative foreign language production? Which test instrument is the better predictor?
Motivation	Gardner & Lambert (1972)  Boyle & Houndoulesi (1993) after Krug, Cattell & Swency (1976)	Integrative and Instrumental Orientations in Motivation in Second Language Learning School Motivation Analysis Test	Does <b>motivation</b> contribute towards foreign language learning?  Would a measure of <b>motivation</b> be a reliable predictor of creative production in a foreign language?
Attitude	Schumann (1978)  Zarate (1997)	Acculturation Model of Social Distance  Inter-cultural skills	Does a positive <b>pupil attitude</b> towards learning a foreign language contribute towards performance in foreign language learning? Does a positive <b>pupil attitude</b> towards foreign language learning contribute to creative production in using a foreign language ? How can <b>pupil attitude</b> be quantified to create a measure?
Giftedness	Renzulli (1979) Sternberg (1997)	Three Ring Model Triarchic Intelligence Model	Are any individual learner characteristics reliable predictors of foreign language performance if <b>combined</b> with other <b>learner characteristics</b> ?
Multiple learner Characteristics	Skehan (1986) Zarate (1997)	Disjunctive Model Inter-cultural speakers	Are any individual learner characteristics reliable predictors of foreign language performance if <b>combined</b> with other <b>learner characteristics</b> ?

## Chapter Five: Methodology

This aim of the opening part of this chapter is to review traditional theoretical perspectives on research methodology in order to focus my thesis in the field of foreign language learning and giftedness more precisely within a particular research approach, with its associated methodology. Subsequent discussion will justify the selection of a particular methodological approach in order to investigate and answer the research questions generated by the literature review of language learning models and gifted foreign language learner characteristics and presented in the previous chapter.

The intention is to produce a clear route of enquiry or research strategy within a specific methodological framework providing coherent and rigorous methods of evidence collection and presentation. Consequently, the research design, the techniques employed and methodological and ethical concerns including fitness for purpose, validity and reliability can be accounted for. Robson (1995) clarifies this:

*“The general principle is that the research strategy or strategies and the methods or techniques employed must be appropriate for the questions you want to answer” (p39).*

The research questions in chapter four help to shape this enquiry and provide the impetus for a more focused study of those selected learner characteristics, which may contribute to individual differences in foreign language performance. An examination of the appropriate research tools for the collection of data, and an outline of procedure is provided. Reference will be made to data gathering techniques, pre-statistical



processing and an exploration of the data analysis methods deemed to be the most suitable according to the type of data collected. The participants and the setting for the research will form the penultimate part of the discussion, and a time line will depict the order in which data was collected. Finally, the research questions will be refined into a number of research hypotheses, keeping objectivity uppermost throughout this empirical investigation within a broad social science setting.

Traditionally social scientists and researchers acknowledge two main models for social science research: the positivist or 'scientific' approach and the anti-positivist or 'interpretive' approach to research. How these are conceptualised and employed within research is reflected upon by Hakim (1987) who compares researchers with architects and builders and comments that when research is designed it has architects preparing the way at a planning stage. The builders take over and finish it. She comments that design:

*"deals primarily with aims, purposes, intentions and plans within the practical constraints of location, time, money and availability of staff. It is also very much about the style, the architect's own preferences and ideas (whether innovative or solidly traditional) and the stylistic preferences of those who pay for the work and have to live with the finished results" (p.1).*

Picking up this metaphor, the aim of the researcher is to transform their 'dream house', their area of interest into reality.

### **Positivist models using quantitative research methods**

A researcher who perceives knowledge as objective will favour a research method in the traditional scientific, positivist paradigm with a quantitative research approach. Elements of the real world can be identified and defined and the researcher will regard these as the focus of the enquiry. Procedures and methods will characterise the research design. The positivistic model generally starts with theory, knowledge and a set of procedures that would show how findings have been arrived at and also enable other researchers to repeat those procedures and arrive at the same findings. Kerlinger (1970) comments: *“What is important is the overall fundamental idea of scientific research as a controlled rational process of reflective enquiry”* (p.21). There may be few or many stages involved ranging from definition to observation of a phenomenon through to association and causality. Finally, laws could be formulated which can be applied to resolve problems and establish further hypotheses. There is a range of methods available depending on the level of sophistication required by the researcher for data collection and analysis within each stage, which involve researchers in the selection of those elements of interest, which are suitable for scientific formulation and therefore possess quantitative aspects. This is an underlying characteristic of the scientific or ‘positivist’ approach, since it assumes that knowledge can be organised and that relationships between events or concepts can be expressed operationally by indicating how the selected learner characteristics are to be measured. A scientific investigation would then be directed at analysing the relationships between learner characteristics.

### **Anti-positivist model using qualitative research methods**

Cohen and Manion (1994) assert that a positivist researcher would have a daunting task in a classroom context because of the complexity of teaching and learning issues. They refer to how the *“immense complexity of human nature and the elusive and intangible quality of social phenomena contrast strikingly with the order and regularity of the natural world”* (p.12). An anti-positivist model supports the belief that those individuals having direct experience of it, in a range of settings or environments, can understand the social world. A researcher who subscribes to the anti-positivist model will generally be influenced by the viewpoint that knowledge has a more human face and they would be more interested in how individuals approach and interpret the real world. Research techniques will collect data from personal experience and thus be more qualitative. Data is collected in words in the form of personal accounts and narratives, and content analysis handles non-numerical data. This approach would seem to fit a classroom situation neatly yet there are criticisms of anti-positivism on methodological grounds, mainly because there is not a shared understanding of the setting and so a researcher would not be able to interpret the event or phenomenon accurately. If theory emerges from the research then the findings will be multi-faceted and confined to the research setting rather than being capable of application in other times and places.

### **Ontological and epistemological viewpoints within social science research**

There are two approaches within social science research, which present different ways of conceptualising, constructing and interpreting reality. By firstly examining the nature or essence of the phenomena being scrutinised, ontological assumptions are

applied in order to establish how an individual could have originally ‘assembled’ the thought of a ‘dream house’. An ontological viewpoint questions if reality is external to an individual and imposes itself onto an individual’s consciousness or if reality is actually a product of individual cognition. Secondly, epistemological assumptions contemplate the bases and forms of knowledge and how these can be investigated and communicated to others. Broadly speaking, this alternative approach conjectures whether knowledge is objective and can be transmitted between people or if is subjective and unique to the individual. Burrell and Morgan (1979) comment “*the epistemological assumptions in these instances determine extreme positions on the issues of whether knowledge is acquired on the one hand, or is something which has to be personally experienced*” (p6.).

### **A rationale for the approach and methodology selected**

Both ontological and epistemological considerations shaped how knowledge is viewed and as a consequence how I elect to conduct a study into foreign language learner characteristics. The evidence for my research into foreign language learner characteristics was collected with a view to analysing relationships and regularities between selected learner characteristics, using objective data. This adopts a positivist approach, assuming that knowledge, that is the numerical data collected and analysed by me, is tangible and the results which emerge from the investigation can be communicated coherently to others, who would acquire or amend their existing knowledge base. The use of statistical tests to explore selected research tools, which may prove to be useful as predictors of future performance, is a further indication

that my research methodology conforms to the quantitative approach, as it is both reductive and replicable research.

## **Research design**

Selecting an appropriate choice of methodology in order to fully examine the research questions, is based in this instance on a expectation that one outcome from the findings will be more informed insight into those learner characteristics associated with gifted foreign language learning and how they influence each other. It is anticipated that the individual role of the characteristics and the relationships they may have with each other can be evidenced by the degree of contribution they may demonstrate. This will require a predominantly quantitative research approach, because the selected foreign language learning characteristics can be defined, measured and the results quantified. There may be some association or simple relationship and the outcome of the research could enable foreign language teachers in their identification of gifted foreign language behaviour and facilitate in identifying who the gifted are. This is dependent on data collection with some prior awareness of what to look for, within a process-driven framework, and can be best described as aligning with the quantitative approach within a positivist paradigm.

Certain methodological techniques used to collect some of the data may lean more towards the anti-positivist approach because I intend to study individual attitudes to foreign language learning and will require individual pupil input in order to produce subjective, non-numerical data which is more usually associated with the qualitative approach. There has been some criticism of the philosophy and value of personal

accounts and the reliance of methodologies designed to seek out and probe deeply into the individual. Seliger (1983) argues that self-reporting should be treated with caution and therefore diary entries written by the foreign language learner cannot be independently confirmed. However, there could be some benefits in eliciting individual responses of a more qualitative nature. These may help to inform the overall understanding of the nature of general learner characteristics influencing foreign language learning by educational psychologists was selected by Naiman, Frohlich, Stern and Todesco (1978), within their Good Language Learner research project. Seliger (op.cit) suggests that personal accounts provide data useful for framing hypotheses and Skehan (1989) confirms the need for a *“more controlled, experimental approach at a second stage of research”* (p.80)

Table 5.1 refers to the research questions matched with the individual learner characteristic selected for investigation. This serves as an aide-memoire guiding the research from the theoretical discussion of gifted foreign language learning performance and creative production when using a foreign language, towards an empirical enquiry that will require specificity and precision.

**Table 5.1: The relationship between the research questions and the selected learner characteristics for enquiry**

<b>Research question</b>	<b>Selected learner characteristic</b>
<p>Do measures of verbal reasoning predict foreign language performance?</p> <p>Does verbal reasoning predict creative foreign language production?</p> <p>Does non-verbal reasoning, predict foreign language performance?</p> <p>Does non-verbal reasoning predict creative foreign language production?</p>	<b>COGNITIVE ABILITY</b>
<p>Does memory contribute significantly to foreign language learning?</p> <p>Would a measure of memory be useful as a predictor of foreign language performance?</p> <p>Do memory and motivation combine as predictors?</p>	<b>SHORT TERM MEMORY</b>
<p>Do language aptitude tests predict pupil performance in modern foreign languages?</p> <p>Do language aptitude tests predict creative foreign language production?</p> <p>Which test instrument is the better predictor?</p>	<b>LANGUAGE APTITUDE</b>
<p>Does motivation contribute towards foreign language learning?</p> <p>Would a measure of motivation be a reliable predictor of creative production in foreign language use?</p>	<b>MOTIVATION</b>
<p>Does a positive pupil attitude towards learning a foreign language contribute towards performance in foreign language learning?</p> <p>Does a positive pupil attitude towards foreign language learning contribute to creative production in using a foreign language?</p> <p>How can pupil attitude be quantified to create a measure?</p>	<b>ATTITUDE TO FOREIGN LANGUAGE LEARNING</b>
<p>How can creativity in foreign language use be measured ?</p>	<b>CREATIVITY</b>
<p>Are any individual learner characteristics reliable predictors of foreign language performance if combined with other learner characteristics?</p> <p>Are any individual learner characteristics reliable predictors of foreign language creativity if combined with other learner characteristics?</p>	<b>MULTIPLE LEARNER CHARACTERISTICS</b>

Table 5.2 displays the relationship between the selected individual learner characteristics and the type of data required in order to design and undertake research. It is of note that rows six and seven refer to outcomes of foreign language learning, namely, performance and creativity in using the foreign language. Data referring to individual differences in performance outcomes of learning (usually assessed and recorded in schools as a National Curriculum level of attainment) will be considered in connection with the individual learner characteristic that may be contributing towards it. Foreign language performance and creative production using the foreign language are selected as potential indicators of gifted language learners within this research. A discussion of the two indicators is presented on pp.203-204.

**Table 5.2: The relationship between selected learner characteristics and type of data**

<b>Selected learner characteristic:</b>	<b>Type of data</b>
Cognitive ability	Quantitative
Memory	Quantitative
Language aptitude	Quantitative
Motivation	Quantitative
Attitude to foreign language learning	Qualitative
Performance in Modern Foreign Languages	Quantitative
Creativity in Modern Foreign Languages	Quantitative & qualitative



## **Research tools**

The next step is to match each learner characteristic with an appropriate testing device, which is both reliable and valid as a test instrument. Table 5.3 provides an indication of the type of research tool suggested for each learner characteristic and the test instrument selected fitting within the quantitative research paradigm apart from the data collection for attitude as a learner characteristic and for some aspects of creativity. This will be accounted for in the relevant sections, which discuss the data collection and test procedure.

The research tools presented in Table 5.3 are the techniques for collecting data, which is generally quantitative, in numerical form. The data collected from the creative production task would be in written and audio-lingual format and would initially be qualitative. The intention would be to process this data and convert it to numerical data by scoring individuals output using the test instrument designed for this research. The test instruments fulfil the role of research tools for collecting quantitative and some qualitative data and are each introduced in order to explain their application and justify their appropriacy for the task. The criteria for their selection were: the need to generate data, which are measurable and have the potential as a predictor of foreign language learning performance and creativity. Some research tools are commercially available as tests for regular use in schools, notably those for verbal and non-verbal reasoning (cognitive ability), language aptitude and motivation. A test for auditory short-term memory was available for use with some pupils in the school. Foreign language performance is assessed formally by foreign language teachers in schools using attainment targets (expressed as

numerical levels) with the level descriptors of attainment and skills published within the National Curriculum for Modern Foreign Languages. Attitude to foreign language learning and oral and written creative production research tools were not readily available and therefore test instruments were designed for the purposes of this research by the researcher.

Each of the selected research tools will be discussed and their connection with the research questions is accentuated. An evaluation of their suitability as a test instrument in the forthcoming empirical investigations is presented together with a reference to the nature of the data that the test will provide.

**Table 5.3: The relationship between the selected learner characteristic, the research tool for data collection and the chosen test instrument**

<b>Learner characteristic</b>	<b>Research tool</b>	<b>Test instrument</b>
Verbal and non-verbal reasoning (cognitive ability)	Pupil cognitive test (written)	NFER Verbal reasoning test NFER Non-verbal reasoning test
Auditory short term memory	Pupil test (oral)	WISC Auditory Short Term Memory Test
Language aptitude	Pupil aptitude test (written)	i)Carroll & Sapon (1997)(Modern Language Aptitude Test-Revised. Psychological Corporation London (MLAT) ii)University of York Language Aptitude test
Motivation	Pupil test (written)	Krug, Cattell & Sweney (1976) School Motivation Analysis test IPAT, Illinois (SMAT)
Attitude to foreign language learning	Pupil questionnaire (written)	Faulkner (1998) Pupil questionnaire
<b>Performance indicator</b>	<b>Research tool</b>	<b>Test instrument</b>
Performance in Modern Foreign Languages	Teacher assessment	Qualifications& Curriculum Authority (1999) Levels and descriptors in: National Curriculum for Modern Foreign Languages. QCA & DFE London
Oral creative production in Modern Foreign Languages	Pupil test / teacher assessment	Faulkner (1998) Creativity test
Written creative production in Modern Foreign Languages	Pupil test / teacher assessment	Faulkner (1998) Creativity test

## **Research Tool: Cognitive ability**

### **Research questions:**

- Do measures of verbal reasoning predict foreign language performance?**
- Does verbal reasoning predict creative foreign language production?**
- Does non-verbal reasoning, predict foreign language performance?**
- Does non-verbal reasoning predict creative foreign language production?**

The measure for cognitive ability that is selected for use in this research is the National Foundation for Educational Research (NFER) cognitive ability test, because it comprises a battery of tests of verbal, non-verbal and quantitative reasoning skills. The raw numerical scores from the Verbal Reasoning test represent a level of language-based skill which relies on individual knowledge of vocabulary and reading skills. The test for Non-Verbal Reasoning is similar to an IQ (Intelligence) test. The verbal reasoning and non-reasoning tests are standardised and have been used in secondary schools in England and Wales for many years. An individual score of one hundred is an average score amongst the population. An individual score of one hundred and fifteen or more would identify a pupil as able. An individual score of below eighty indicates the pupil may have special educational (learning) needs. The NFER Cognitive Ability tests would therefore appear to fit the purpose in measuring both verbal and non-verbal reasoning skills.

## **Research Tool: Auditory short term memory**

### **Research questions:**

**Does memory contribute significantly to foreign language learning?**

**Would a measure of memory be useful as a predictor of foreign language performance?**

**Do memory and motivation combine as predictors?**

Auditory short-term memory was selected as a cognitive learner characteristic and the Digit Span test from the Wechsler Intelligence Scale for Children (1992, United Kingdom edition) was available as the test instrument. This test comprises two skills: recalling digits forward and digits backward and the administrator reads aloud a series of numbers which the participant attempts to orally repeat accurately using the skill of auditory short memory. The series of numbers begins with two digits and increases up to a string of nine random single digits. The numbers are read at an even pace without inflection or pause, which could hinder or help the listener, if they sequence or chunk numbers rather like attempting to learn and recall a telephone number. The same principle is applied to digits recalled backwards although the maximum number to memorise and repeat in reverse order is eight. Educational psychologists use this test as a reliable supplementary subtest of global ability, together with Arithmetic, to determine freedom from distraction. However, Sattler (1992) expresses some concern regarding the existence of this factor and therefore questions the validity of a digit span test as an indicator of ability. The numerical information recalled is verbalised by the participants and scored by the test administrator. The test can be related to foreign language learning because it assesses the power or span of the auditory short-term memory. The skilful, gifted foreign language learner might demonstrate an above

average ability by being able to recall more information, that is, digits forwards and digits backwards accurately. They would possess fewer memory constraints.

The test is hand scored by the administrator whilst the participant recalls the digits forwards and backwards in two subtests and the two subtest scores are added together up to a maximum of thirty.

### **Research tool: Language aptitude**

#### **Research questions:**

Do language aptitude tests predict pupil performance in modern foreign languages?

Do language aptitude tests predict creative foreign language production?

Which test instrument is the better predictor?

The first aptitude test chosen as a test instrument was devised by a team from the University of York (1975) called the York Language Aptitude test. This was selected because it is considered very straightforward to administer and to score. The test comprises forty-two questions and participants attempt to produce definite and plural forms of Swedish nouns and the present tense forms of Swedish verbs. The test is intended to present an unfamiliar language to pupils and they have to deduce the grammatical rules of the language in order to reproduce the correct forms and is scored manually with a score of one for each correct response to a total of forty two. A general discussion about testing for aptitude in the Journal of the National Association of Language Advisers (1977) states that: *“for the group as a whole the (York) aptitude test predicted quite well”* (p.1). Although it adds the caveat that *“to base decisions on them alone without taking account of other learner characteristics*

*when placing pupils in language courses might do pupils an injustice” (p.3) which suggests that it is an erratic predictor for individuals and may not be entirely reliable.*

Whilst the test writers do not support the practice of excluding pupils from foreign language learning opportunities based on aptitude test results, they do however see its usefulness in setting pupils into foreign language groups and a use for long term prediction. Aptitude scores were correlated with GCE language results five years later as part of the York study (1975). In particular the research referred to the predictive value of verbal reasoning, which predicted performance fairly consistently throughout the five- year period of study. As the research for this thesis also uses verbal reasoning as a predictor, it will be interesting to report if the same pattern emerges, namely that both verbal reasoning and language aptitude emerge as significant and consistent predictors.

The authors of the York test refer to the Modern Language Aptitude Test (MLAT) in their critique of foreign language aptitude testing. Carroll and Sapon originally published the latter in 1957, after a five year study at Harvard University. This culminated in what Carroll (1965) described as a *‘four component view of language aptitude’*. The test was revised for use in the United Kingdom in 1997, with an English voice on the audio cassette and five sub-tests: Number Learning, Phonetic Script, Spelling Clues, Words in Sentences and Paired Associates. Pupil responses are marked as either correct or incorrect and the total raw score of one hundred and ninety two is the maximum number of correct responses from one hundred and ninety two items. Raw scores can be used to rank candidates in order of performance or are transformed into norm scores, using percentiles and T scores. The former shows the

relative position of each candidate, but not the amount of difference between scores. The T scores are another form of standardised norms and are useful to compare with data from other tests, which have used the same format.

Data were gathered for the pilot from schools and colleges in the United Kingdom. The test handbook outlines the procedure for test administration and discusses the role, purpose and usefulness of the test. Draycott (1997) explains:

*“The MLAT-R does not predict whether an individual can learn a foreign language if he or she is given time and opportunity to do so; what it does predict is how well an individual can learn a foreign language in typical foreign language courses in the usually allotted time” (p.31).*

The test would therefore be appropriate within the context of this research. The test is defended as both reliable and valid based upon research findings by Carroll and Sapon (1959), Raymond and Roberts (1983). Lutz (1967) comments that: *“validity coefficients for the MLAT have typically been about 0.20 higher than those found from traditional ability predictors” (p.49).*

Both the York test and the Modern Language Aptitude test are the selected instruments used in order to ascertain which of the two is the more reliable and consistent predictor.



## **Research Tool: Motivation**

### **Research questions:**

**Does motivation contribute towards foreign language learning?**

**Would a measure of motivation be a reliable predictor of creativity in using a foreign language?**

Gardner and Lambert (1979) refer to the Attitude Motivation Index (AMI), which consists of eleven measures, which correlate strongly with achievement and when combined with the Modern Language Aptitude Test actually strengthen the correlation. However, the former was not readily obtainable and consequently the decision was taken to use the School Motivation Analysis Test (SMAT) following a review of a research paper by Boyle and Houndoulesi (1993). This is a multiple-choice test, designed to predict achievement in school. Their research subjects were high school students enrolled in a Melbourne foreign language school.

Throughout their research they refer to foreign language learning and foreign language acquisition and do not differentiate between the two. However, Ellis (1990) points out that to distinguish between the two is to define the conditions of learning. Acquisition refers to learning as a result of natural exposure, and language learning occurs as a result of formal instruction. The test authors Krug, Cattell and Sweney (1976) suggest that conscious and unconscious aspects of motivation contribute to school achievement. Boyle and Houndoulesi (op.cit) hypothesised that motivation factors would account for twenty to twenty five per cent of the variance associated with learning a second language. The test is useful for quantifying the contribution of motivation traits to academic performance and their results support their hypothesis

that motivation would account for twenty to twenty five per cent of the variance associated with foreign language learning. They concluded that:

*“the present findings provide support for the predictive validity of the SMAT in regard to school learning”* (p.509).

Their use of this test in a high school within the context of motivation in foreign language learning lead me to consider the School Motivation Analysis Test as a measure of a potential predictor of gifted foreign language performance.

The test samples a child's interests and learner characteristics and analyses the data from ninety questions, grouped into three parts: Uses, Paired choices and Knowledge. Results are interpreted via ten 'dynamic source traits'. These include: assertiveness, mating, fear, narcissism, pugnacity-sadism, protectiveness (pity), all described as biological drives, and self-sentiment, superego, school and home which are sentiments acquired from experience. These are processed further to calculate five 'derivative' Sten scores which, according to the test authors Krug, Cattell and Sweney are *“an even broader index of total interest across the ten dynamic areas”* (1976, p.11). Sten scores or “standard tens” use a ten unit scale with a mean of 5.5. The full range of test scores is thus scaled as a series of digits between one and ten and the score of an individual is expressed in terms of its distance from the mean.

The five measures embedded in the School Motivation Analysis Test are used in the research for this thesis to investigate which may be useful in predicting creativity and ability in foreign language learners. The test authors, Krug, Cattell and Sweney (op.cit) noted that some of the devices used to measure motivation produce clusters of information which themselves measure the organised aspect of motivation. They

define this as the 'integrated component' and another set, representing the unconscious aspect of motivation as the 'unintegrated component'. This suggests that motivation is multi-layered, existing as a conscious and unconscious component of human behaviour. In a learning context, a learner is conscious or aware of the degree of success or interest he or she may have in a given area and at the same time possesses an unsatisfied need or drive that they are not as aware or conscious of. The following five traits identified as aspects of motivation measure an individual's conscious and unconscious motivation: autism-optimism, general ability (IQ), integration, personal interest, and conflict / frustration.

Autism-optimism is the first of the five measures and is used to investigate an individual's unconscious distortion of his or her thinking by misperception and disbelief. The derivative score is the sum of ten scores which represents the general tendency of an individual to distort reality. The authors suggest that this tendency acts in the favour of the individual because it encourages him or her to realise their goals. If the individual wishes to reach a particular goal then he or she will accept that what is offered or available to achieve this, will be of help. Unfortunately, the test manual was not clearly written to enable straightforward interpretation of this measure and the test publishers were contacted by electronic mail. The manager of the Research and Development department at the Institute for Personality and Ability Testing in Champaign, Illinois explained how autism should be interpreted and quotes from the revised version of the Motivation Analysis test handbook (Cattell, Horn, Sweney and Radcliffe, 1964) that:

*"Autism is a measure of wishful thinking applied to one's conditions. Thus, optimism becomes a rather good synonym. Surprisingly, this generalized*

*autism seems to operate in quite a different direction from the autism associated with schizophrenic withdrawal. A depressed overall score on autism is one of the predominate indicators on the MAT of the "loser's syndrome". Nearly every group that is having difficulties can be seen to have a lower than average score on this operational measure of optimism" (p.21-22).*

At one extreme an individual is unwilling to communicate and at the other is involved in what is going on around them. This broadly describes the range of pupil behaviour in a foreign language classroom and may be a powerful predictor of achievement in the good foreign language learner.

General ability (Intelligence Quotient or IQ), is the second measure and is scored by adding ten information scores together to give a general ability index. Integration, the third measure relates to the personality, demonstrated by the extent to which an individual's overall drive and energy is put into realistic, disciplined expression to reach a goal. This could be interpreted as an individual's desire to communicate if this personality measure is contextualised in a foreign language learning environment. The fourth measure is Personal Interest, relating to the individual's overall drive or interest in things outside them, including friends, hobbies and interests. Finally, conflict-frustration, the fifth measure for motivation also required some additional input from the test publishers because the SMAT handbook did not provide a clear explanation of how to interpret this measure. The Motivation Analysis Test (MAT) handbook states:

*"This is the measure of the total frustration which a person seems to endure. This is inner conflict, and therefore may not be manifesting itself in overt behaviour. From a Freudian point of view it would reflect the amount of energy invested in internal strife and would therefore be inversely related to*

*the amount of energy available for investment in active goal-directed behavior. Thus, it is not surprising that groups such as neurotics and the chronically unemployed are significantly above average on this dimension”.*

The SMAT handbook is more succinct and adds that it is a measure of a general frustration level (p.8). A discussion of how and when this test was administered will take place in the section on data collection procedure.

### **Research Tool: Attitude to foreign language learning**

#### **Research questions:**

Does a positive pupil attitude towards learning a foreign language contribute towards performance in foreign language learning?

Does a positive pupil attitude towards foreign language learning contribute to creative production in using a foreign language ?

How can pupil attitude be quantified to create a measure?

This, the fifth individual learner characteristic, was selected for investigation into its usefulness as a predictor of foreign language performance and creativity. The research tool chosen is a pupil questionnaire a copy of which can be found in Appendix A and this methodology can be traced back to the study of successful foreign language learners conducted by Naiman, Frohlich, Stern and Todesco (1978), discussed in chapter three, whose findings had suggested that there was value in finding out about pupil attitudes to learning languages and recommended the following methodology:

*“a brief, but carefully designed, interview with a student may indicate a great deal more about his overall attitude to language learning, and therefore the probability of his success, than the results of an involved attitude battery”*

(p.67).

It was necessary to design my own questionnaire which could be used as a measure of pupil attitude to language learning as a commercially available questionnaire for carrying out research for this thesis could not be located.

### **Pupil questionnaire construction**

This test instrument was designed for this research and comprised a series of twenty closed questions reflecting some of foreign language learning scenarios and issues that may contribute to pupil attitudes to foreign language learning according to recent research findings. For example teaching and learning strategies (O'Malley and Chamot, 1990), learner self-esteem (Andrews, 1998) learner anxiety (Bailey,1983), parental attitudes (Skehan,1989), and group dynamics (Dornyei and Kormos, 2000). Questions are very specific, for example Question 3: "*Do you worry about your work in Foreign Languages lessons?*" or Question 19: "*Do you enjoy group work and role play in Foreign Languages lessons?*" Using closed questions forces a response, which is limited to either a yes or no. The trustworthiness of the data relies on the pupil's understanding of the question and the technical proficiency with which the data was handled. The decision was made not to use a summated rating (Likert) scale, which would increase the time taken to complete the questionnaire and the probability of a different response in a retest. Whilst the design of the questionnaire is basic and unsophisticated in appearance, the lack of response categories was calculated to make the questionnaire more workable for the participant and easy to handle. Child or pupil friendly questionnaires sustain interest. The correct answer for each question scored one and the total individual score is calculated for each individual. The correct answers were either a "yes" or "no" choice for each question. For example: Question

3: *“Do you worry about your work in Foreign Languages lessons?”* A positive answer is No and gains a score of one point.

### **Conducting a pilot**

Piloting this research tool demonstrated a willingness to adhere to the key principles of the research process prior to using the test more widely, ensuring test validity and reliability. Validity relates to the aims and purpose of the test and whether the test actually does what it purports to. Test reliability is concerned with the consistency of scores obtained by the test. Confidence in a test relies on there being very little variation in scores if an individual was tested on different occasions. By attempting to maximise both validity and reliability within test construction, I can ensure that the pupil questionnaire is a relevant test with credible results. The questionnaire was designed to obtain a small amount of information from a sample population as a snapshot of attitudes at a given time. The possibility of variation in pupils' attitudes was overcome by piloting the questionnaire with a large sample of one hundred male and female pupils of mixed ability aged thirteen. This group was retested a fortnight later to ascertain whether responses varied over time. This group was asked if the questions were worded clearly however one oversight was that they were not asked to recommend any alterations or additional which might have proved useful.

A total score for each participant was obtained ranging from zero to twenty. A score of zero would equate with no interest in foreign languages, no parental support and low motivation in the foreign language class. A maximum score of twenty represented a very positive attitude to foreign language learning, high motivation to perform in

class and use the foreign language confidently and to a high level of positive parental attitudes and support towards foreign language learning. The results were correlated using a t-test and individual questions were analysed using chi correlation for construct and internal validity. The test-retest procedure produced a high confidence level in the test results after cross tabulations were carried out on the pairs of results to ensure there was a relationship and to test reliability. The test is reliable because the two sets of scores are highly correlated. The individual questions have a lowest correlation of 0.50 and the highest is 0.77. The overall reliability correlation coefficient ( $r$ ) is 0.95, which is very satisfactory because this indicates that ninety five percent of the variation in true scores is reliable and only five per cent of the variation is due to error or chance affecting the results. Draycott (1997) comments: *"In psychometric measurement, absolute reliability is unattainable"* ( p.43).

### **Results from the pilot**

This pilot or feasibility study established that pupil responses did not vary significantly (comparing test and retest responses) and therefore there can be a high degree of confidence in the questionnaire. *"Conduct a pretest and then revise your procedure in the light of what you learn from the pretest"* (Simon, 1978 p.174). The presentation of the questionnaire was a consideration. The results from the pilot indicated that it was readable, child - friendly and appeared straightforward to complete. The instructions were clear and the contents were arranged to maximise co-operation from pupils who could see that the questions applied to them. The questions did not confuse the participants and some took the opportunity to annotate their paper with comments about the teaching and learning styles that they judged to be most



commonly used. The pupils viewed their involvement with considerable interest and wanted to know if any changes would occur in their lessons as a consequence. The researcher agreed to share their comments with the relevant teachers. Pupils in the pilot sample also commented that role play was one method they would like to use more frequently and this demonstrates that they can see the advantage of speaking practice in a less structured setting and the role of the group as motivators in the learning process. Role play could provide the intellectual challenge for some pupils and increase their motivation.

The questionnaire can be considered robust and reliable after analysis of test / retest results from the pilot group from a statistical, quantitative data perspective. However, this research tool was selected as a suitable method of data collection from a small sub-group whose composition is outlined later in this chapter introducing the participants. Using a sub-group is more manageable within the time constraints given that the data from the sub-group can be assumed to be representative of the whole group. Each pupil was contacted and invited to complete a questionnaire and to bring this to an individual interview arranged to coincide with the creativity and memory testing of the sub-group. The intention of surveying pupil attitudes is to provide useful complementary information, which provides more qualitative insight into this issue. Comments the pupils wrote and the raw data from the pilot was made available to the Modern Foreign Languages team. They therefore had access to the qualitative data as teachers of the pupils involved in the pilot, however the qualitative data was not fully utilised because the original plan was to convert its format to numerical data for continuity and add it to the data set where the quantitative data was stored. With hindsight there were some other limitations and perhaps more questions on the same

theme of pupil attitudes to language learning could have been provided to support validity. The questionnaire had not been designed for pupils to explain their answers and this unexpected response shows that whilst the questionnaire could prove to be a useful means of collecting qualitative data about language learners' attitudes, some adjustments to questions would be necessary before being used outside the research for this thesis.

### **Research Tool: Performance in Modern Foreign Languages**

The Foreign Languages teachers, using National Curriculum levels and their corresponding descriptors, measured pupil performance in Modern Foreign Languages annually. Pupil scores relate to performance in four key areas of attainment: listening and responding, speaking, reading and responding, writing.

*“An attainment target sets out the knowledge; skills and understanding that pupils of different abilities and maturities are expected to have by the end of each key stage”* (Education Act 1996, section 353a)

The levels describe the range of performance pupils demonstrate and teachers judge whichever level best describes each pupil's performance. Formal assessment would take the form of an end of topic or end of year test. A summary of the level descriptions within each of the four attainment targets is provided in Appendix B. In the context of this thesis, Performance in Modern Foreign Languages was a dependent variable, which was examined to determine what effect the individual learner characteristics or a combination of these may have on it.

**Research Tool: Creativity**

Research question:  How can creative foreign language use be measured?
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The National Curriculum for Modern Foreign Languages requires teachers to provide opportunities for pupils to express themselves creatively in the target language. *“Pupils should be taught the knowledge, skills and understanding through 5f: using the target language creatively and imaginatively”* as directed by the Department for Education and Employment / Qualifications and Curriculum Authority (1999, p.17).

Creativity in using a foreign language enables the learner *“to invest something of him- or herself in the activity”* according to Swarbrick (1994, p.143). She considers the need to create the right conditions for creativity in the Modern Foreign Languages classroom and for pupils to experiment with the language they are learning with teacher input as an obvious source of stimulus. *“Teachers need to persevere...in terms of putting their creative energy into devising different ways of stimulating pupils’ creativity”* (p.145). I have chosen to interpret creativity in foreign language learning in the research for this thesis as the creative output produced by a language learner in response to a written and oral challenge. The learner therefore has the potential to demonstrate creativity using the target language.

My objectives are threefold:

- to give pupils the chance try out the language they know to express meaning orally (p.160 Comprehensible Output- Swain, 1985) (pp.66-67 ZPD and Inner Speech- Vygotsky, 1962,1978)
- to engage them in a stimulating task allowing them to use language purposefully with the potential for creative, imaginative written outcomes
- to construct a measure of pupils' creativity for use with oral and written tasks

Level eight at National Curriculum level is commonly understood to be the level above which, exceptional performance is judged by teacher assessment of teacher-generated tasks. The form of the creativity task was exploratory, planned as an open-ended question with an expected verbal and written pupil response, borrowing from the qualitative research tradition. Evaluation of pupil performance relied on levelled performance descriptions of the differentiated pupil responses. The mark schemes for the written and oral creative production tests are located in Appendices D and E. Each of the creative performance descriptions was matched with a numerical level. Using the latter as a quantitative assessment mechanism ensured construct validity and compliance with all the other data collected. The objective was to offer an open-ended question with a 'differentiation through outcome approach' to appeal to individual creativity and assessment was couched in quantitative terms.

Pupils were invited to design a series of questions in their target foreign language. They read out their questions, which were recorded on audio-tape for ease of data handling and to ensure scoring was consistent. The specific linguistic skills that were

targeted included: range of personal language, appropriacy (selecting language to best fit the task), and accuracy with grammar and pronunciation. The two mark schemes for these skills (see Appendices D and E), describe skill progression from zero to six. The oral creative production test, (measuring the degree or level of oracy including syntax, pronunciation and fluency) ranged from a low score of one "*Pronunciation frequently unintelligible. Reads words without meaning*" to a maximum score of six: "*Native pronunciation. No trace of foreign accent*" (Faulkner, 1998). The written questions and the aural evidence from the tape facilitated the scoring for creativity with a grammar pattern component. A score of 0 depicts a participant who uses inaccurate phrases and their meaning is impossible to comprehend. A score of six is for participants who made no more than two errors. The creativity tests assessed two skill areas: writing and speaking in the target language and were piloted in April 1998.

The most creative written responses would be expected to demonstrate a good control of grammar and syntactic patterns with no more than two errors, which would not interfere with meaning. The oral creative production measure ranged from frequent errors and repetition with mispronunciations made by the less able linguist, to the more able linguist, who could demonstrate almost native like pronunciation and little trace of a 'foreign accent'. During the third year of foreign language study the pupils at the school are expected to be able converse about personal and topical interests and the creativity tests provided an opportunity for pupils to improvise and give clear messages in an informal setting. They chose their favourite celebrity from a list of singers, actors and footballers and their questions reflect their own level of knowledge and interest in the chosen celebrity. The interview-style setting was deemed to be

appropriate after considering the ethical issues relating to the care and well being of the participants.

Arguably there may be some limitations with this approach. The task may prove not to be sufficiently cognitively demanding because the information chosen by the speaker is known to them already and could be practised in advance. Some of the foreign language learners may find that conveying information they were familiar with in English will not be as straightforward in the foreign language. Grenfell and Harris (1999) add that:

*“It appears as if producing the language, other than through well-rehearsed answers, demands an extensive trawling process and uses up a lot of mental-processing space.”* (p.67).

However, writing a series of questions in the target language initially could be cognitively and linguistically demanding for some. Chapter seven reflects on the test design and the results collected (p280-281).

### **Ethical and methodological considerations**

At this point it is pertinent to state that for ethical reasons the individual identity of the participants was not revealed. Once the data are numerical there ceases to be any direct link with individual pupils. The pupils were comfortable about taking part and they did not view their role as unnatural. The risk of bias was avoided by selecting a sample at random to alleviate any threat to internal validity given that the researcher worked in the school and knew the pupils. Cognitive data, which had been collected over three consecutive years, was screened to ensure a cross-section of abilities. The

pupils within the sub-group were fully informed and had a right not to take part, although none exercised this. There was neither a threat to their privacy nor a degree of inconvenience or emotional involvement, and the methods selected to collect data and the field of research were not contrived nor unfamiliar so participants did not feel a need to question any aspect they were involved in. Robson (1993) comments:

*“How is our ‘right to know’ balanced against the participants’ right to privacy, dignity and self-determination?” (p.29).*

The subject matter of the research was not deemed to be sensitive nor subversive and the involvement of pupils would not cause indignity nor undermine their self-esteem. These considerations were judged alongside the benefits of carrying out the research. The natural setting of a school using a population known to the researcher might result in a need to exercise some caution in making generalisations about the wider application of the findings. However, the use of a range of data collecting methods, within the quantitative framework will increase the confidence in construct validity. The fundamental aim of the research was to identify a group of best predictors of foreign language performance and creativity. It would therefore ultimately be possible to identify who the gifted linguists will be in a school when there is confidence in findings in this research. That is, results may indeed show that a cluster of variables including cognitive ability, language aptitude, and motivation, memory and pupil attitude to foreign language learning are useful predictors of future achievement.

### **Pupil participation in this research**

Access to a group of foreign language learners was negotiated in the school where the researcher worked as a senior manager and teacher of geography. The foreign

language learners would be the participants in the research. They would be tested and in some cases interviewed. Therefore, permission had to be sought to establish if the intended setting, within a secondary school was feasible. It was more practical for this researcher, as a full time teacher in an urban secondary school to locate her research within the existing school community rather than seek an alternative. The inner city comprehensive school is located in a residential area close to the centre of Peterborough in Cambridgeshire. Pupils are aged between eleven to eighteen years and the total on roll is currently one thousand and eighty five, with a sixth form population of two hundred and forty seven. The school gained Beacon School and Technology College status and is also a training school for Initial Teacher Training of graduate students from Homerton College, Cambridge.

In 1996, the year seven cohort at the school was selected as the whole group of one hundred and sixty five pupils, whose individual differences in foreign language learning and other identified characteristics were to be tested. These pupils joined the school in September 1996 and sat their GCSE examinations in summer 2001. They were selected as the whole group for this research because they were new to the school and had not received formal teaching in a foreign language at primary school. Some Pakistani pupils speak Mirpur Punjabi, a dialect of Urdu spoken in Pakistan as their mother tongue and English as their second language, but many had not received formal instruction in Urdu. The pupils, aged eleven to twelve years, were placed in tutor groups, which are traditionally mixed ability, gender and ethnicity with about twenty eight pupils in each of six groups.



Limiting data collection to that from a sub-group (category two in the data set) to represent the total population, allows for more rapid data handling and a more manageable size for data collection for a researcher. Fifty six pupils were drawn at random to ensure that each member of the population had an equal chance of being selected for the sample. A table of random numbers generates no systematic biases and eliminates biases in the researcher's choice of subjects. Sampling took place in September 1998, and each individual was informed of his or her participation in an interview with the researcher in December. The written and oral creative production and memory tests took place at this time, together with the auditory short-term memory test and the pupils returned their attitude to foreign language learning questionnaire directly to the researcher. Data were added to the data set after scoring took place, assisted by the Modern Foreign Languages team.

### **Data collection procedure**

Data collection initially included the use of the whole group of one hundred and sixty five pupil participants whose individual learner characteristics were each measured using the selected test instruments. The raw data was collected and subsequently a computer data set was produced allowing ease of viewing and handling, and displaying the individual scores in the test range (see Appendices F and G). This numerical data reflected individual differences in varying amounts for each learner characteristic measured and presented a spread or range of quantitative data. The pupil questionnaire (appendix A) presented questions about foreign language learning and it prompted simple responses from the sub-group. Discussion of the questionnaire construction in a previous section explains how the pupil responses





were converted to quantitative data. This was very straightforward to carry out as the pilot for the questionnaire had demonstrated the ease of numerical scoring for correct answers. The interview that was conducted with pupils from the sub-group produced data from the oral and written creative production tests and these were scored numerically. The qualitative responses from pupils in the target foreign language were converted to numerical data to ensure a consistency of data handling and processing. The interest was not on the individual but on the statistics generated from the pupil responses converted to numerical data and generalised to the whole group. The focus is on looking for relationships between individual learner differences and pupil performance and creativity in foreign language learning, using statistical tests to analyse data. Taylor (1995) explains:

*“Using a standard objective system of measurement is important as it reduces reliance on the judgement of the investigator and is therefore more likely to produce reliable data” (p.608).*

Thus the enquiry procedure, driven by research questions places this research within the quantitative model of methodology. The timeline of data collection in Table 5.4 demonstrates the order of testing and data collection between 1996 and 1999. The selected research tools are each entered on the time line and indicate that the test participants were either the whole group of the pupils in the year group or the sub-group selected to represent the whole. The next section in this chapter discusses the collection of data for each of the five selected learner characteristics and for the indicators of attainment or achievement, namely, creativity and performance in foreign language learning that may be dependent upon the influence of the selected individual learner characteristics.

**Table 5.4:**

**TIMELINE OF DATA COLLECTION**

<b>1996</b>		<ul style="list-style-type: none"><li>• Cognitive Ability Tests (Whole group - September 1996)</li></ul>
<b>1997</b>		<ul style="list-style-type: none"><li>• York Language Aptitude Test (Whole group - January 1997)</li><li>• School Motivation Analysis Test (Whole group - July 1997)</li><li>• Cognitive Ability Tests (Whole group - September 1997)</li></ul>
<b>1998</b>		<ul style="list-style-type: none"><li>• Creativity Pilot - April 1998</li><li>• Modern Language Aptitude Test (Whole group - January 1998)</li><li>• Attitude to Foreign Language learning Questionnaire Pilot - September 1998</li><li>• Cognitive Ability Tests (Whole group - September 1998)</li><li>• Oral creative production Test and</li><li>• Written creative production Test</li><li>• Auditory short-term Memory Test</li><li>• Pupil attitude to Foreign Language Learning Questionnaire (Sample group) - December 1998)</li></ul>
<b>1999</b>		<ul style="list-style-type: none"><li>• Performance in Modern Foreign Languages (Sample group - July 1999)</li></ul>

### **Data Collection: Cognitive Ability**

The whole group of one hundred and sixty five pupils began their first year in secondary school, known as year seven, in September 1996, and was tested within the first fortnight for cognitive ability, using the NFER verbal and non-verbal reasoning tests. In September 1997, the pupils, now in year eight, aged twelve to thirteen years sat the cognitive tests to identify areas of individual progress (gain scores) and areas of learning need. This was repeated when the year group reached year nine in September 1998. This test took place as part of the normal routine for the year group and a number of teaching staff administered the tests and scored the pupil test sheets. Data was passed on to the researcher and loaded into the data set on a computer.

### **Data Collection: Auditory short term memory**

Data collection took place in December 1998 within the individual interview with each of the participants in the sub-group. The memory test was particularly well received and there was a relaxed response from many of the participants who later added that it was good fun and not like a test. Some of the participants also commented on their learning for memory strategies, and these skills are tested within the language aptitude test (phonemic coding ability in the revised version of the Modern Language Aptitude test or MLAT-R). The test was hand scored by the researcher as each subject responded to the digits forward and digits backward and the total score was added to the data set in category two.

### **Data collection: Language Aptitude**

The York language aptitude test was administered in January 1997, when the pupils had been learning their chosen foreign language for seven weeks. The test was incorporated into the foreign language lessons providing a natural setting for this aspect of data collection. This was aided by the co-operation of foreign language teaching staff, which meant that there was no problem of staff availability and no unease, because the teachers are familiar to the pupils. They did not view their participation as artificial and therefore were not exposed to the possibility of additional test anxiety. This quasi-experimental approach within a classroom setting reduced the threat to external validity. Thus the Hawthorne effect, that is the threat to research as a result of a positive reaction by participants due to the attention they receive, was nullified because testing in the natural setting of the foreign languages lessons 'built in' rather than 'bolted on' the tests.

In January 1998, the whole group sat the Modern Language Aptitude Test. The test was in the process of being revised by the publishers, Psychological Corporation (1997) to standardise it for use in the United Kingdom. They agreed to provide and score the pupil test papers on my behalf on the understanding that they as part of their test trials could use the resultant data. An assurance of confidentiality confirmed that it would be reasonable to allow the test to be scored externally and participants were informed of this. The test was administered in the formal setting of an examination room to limit the amount of noise disturbance as the test instructions and test components are on audio-cassette. Pupil scores were returned and manually added to the data set in category one and two. The test scores were returned as a set of raw

scores with a maximum raw score of one hundred and ninety two. The raw scores were added to the data set as other data had been collected in this format.

### **Data Collection: Motivation**

The whole group sat the School Motivation Analysis Test (SMAT) in July 1997. It was administered and hand scored and it was decided that the use of the five derivative scores as five broader motivation measures would be worth trying out instead of the ten used Boyle and Houndoulesi (1993) the Australian researchers who had trialled the use of this particular test as a research tool in their foreign language learning research.

The intention of using the School Motivation Analysis Test (SMAT) for my research for this thesis was discussed with year seven tutors who taught Personal and Social Education (PSE) to their tutor groups for one period a week. Test papers were provided for staff to peruse and the tutor team and the classroom assistants were instructed in advance about how to administer and invigilate the test. It was not a straightforward test to administer and the co-operation of the staff that helped to establish an appropriate atmosphere, did contribute to the ease of managing the test with all the pupils participating willingly. The content of the test and the multiple choice question style seemed to fit best within the year seven programme of study for Personal and Social Education framework which often adopts an enquiry approach to topics. The data was returned to the researcher for hand scoring and the raw data results were hand written onto an individual School Motivation Analysis Test scoring worksheet. This process was very time consuming and it is not unreasonable to

speculate that this cumbersome procedure could have contributed to this test instrument no longer being in use in schools in the United States, where it was originally designed for use with students aged twelve to seventeen years. The adult version Motivation Analysis Test (MAT) is still available however and it is likely that improvements in information technology have made hand scoring and the individual worksheets obsolete. The data from the motivation test were added to the research data set.

### **Data Collection: Pupil Attitude to Foreign Language Learning**

During the third academic year beginning September 1998, a sub-group of fifty- six pupils was selected at random for further testing following a successful piloting of the questionnaire as a test instrument. All the sub-group was expected to complete the pupil questionnaire, designed to discover the range of pupil attitudes to foreign language learning prior to an interview with the researcher. The questionnaire had been distributed to them two days earlier together with the venue and time of interview details and they were invited to attend with their completed questionnaires. There were three pupils who did not return them on the day but produced them at a later date. The questionnaires were hand scored by the researcher and each pupil score was added to the data set as category two data relating to the sub-group only.

### **Data Collection: Oral and Written creative production**

Pupils in the sub-group were invited to design a series of open-ended questions, which they wanted to pose to a celebrity of their choice from the examples provided (see

Appendix C which shows the framework for the pupils). They brought their questions to their individual interview in December 1998 at which they were expected to read their questions aloud in their target language of Spanish, French, German or Urdu. Eight learners of Urdu, six German, fifteen Spanish and twenty seven French speakers took part and their work was recorded on audio-tape and assessed for ability to combine foreign language in a personal way using a marking scheme written for the purpose. The pupils in the sub-group were in year nine, aged from thirteen to fourteen years.

The timing for administering the creativity tests was critical and was set for late in the autumn term to avoid pupil and teacher anxiety. Staff and pupils may have been less positive about creativity tests taking place during the Spring term of year nine because traditionally this is the time in the academic year when pupils consider their options for education post key stage three, including their choice of subjects for General Certificate in Secondary Education courses. In addition, preparation for the year nine standard attainment tests (SATs) takes place in the early part of the summer term.

Data collection took place over two days; however each pupil only spent about fifteen minutes with the researcher. One small oversight made during the co-ordination of the interview was pupil order. The pupils had been randomly selected to be participants in the sub-group and the order could have been arranged so that the tapes had Spanish speakers, that is, fifteen in sequence, followed by the next language. The recordings had to be re-organised (re-recorded) before the scoring could take place with the assistance of foreign language staff who do not speak all four of the target foreign languages and due to their teaching commitments were unable to assess



collaboratively anyway. This was a minor oversight in the research design, which did consume more time than it needed to.

Of the fifty-six pupils in the sub-group, all completed the written and oral creative production task and the foreign languages staff were approached and offered to assist with the scoring. This was necessary for the Urdu and Spanish and was a welcome offer of assistance with the French and German papers and audio-tapes. This had produced some anxiety amongst a few pupils. They commented that it was the fact that they were being recorded that made them uneasy. The researcher assured them that the recordings would only be heard by their foreign languages teacher and that the identity of the participants might never need to be revealed once the scoring was completed and the results were to be added to the data set. The results of the creative speaking and writing tasks were assessed and measured using the numerical scale designed by the researcher and the raw data added to the data set.

Some pupils admitted that they had sought advice from parents and their teacher and had asked for new vocabulary and may have viewed the interview as an opportunity to show what they could do. There may have been some pupils who relied heavily on support so much that the output was not their own work. Despite reservations about the creativity test validity, (expressed on pp.305-307), it did become clearer in the interviews that the pupils who wrote their own work read it fluently and had learned by experiencing the task rather than replicating ideas from others which they did not understand or were not capable of even with scaffolding. The foreign language staff reported that they noted which pupils had gone out of their way to be original or amusing or accurate in grammar, syntax and pronunciation. They commented that a

few had really exceeded their expectations adding that this was very rewarding experience for them hearing their pupils communicating outside their classroom to a different audience. In Vygotskyian terms, the better-motivated pupils may have used the creative task to extend their own zone of proximal development with support from outside the formal setting of the classroom.

### **Data Collection: Performance in Modern Foreign Languages**

The Qualifications and Curriculum Authority (QCA) who publish the National Curriculum for Modern Foreign Languages provide foreign languages teachers with details regarding statutory assessment at the end of each key stage. The Modern Languages staff assessed the whole group formally in July 1998 and the final data for the sub-group was added to the database after teacher assessment in July 1999 using the National Curriculum levels for Modern Foreign Languages (Appendix B). No details were made available regarding the nature of the assessment tasks for performance although 'continuous assessment' using a range of listening, reading, speaking and writing tasks form part of the planned programme of study during the course of an academic year.

### **Data analysis: Pearson Correlation Coefficient**

Performance and creativity in foreign language learning were the outcomes of learning and are expressed as dependent variables, when processed statistically in order to study their relationship with the selected learner characteristics. By using inferential statistics the data collected from pupil test results in the form of interval

scores was processed and analysed to see if the measures can predict the future performance of these pupils in foreign language learning.

The choice of statistical analysis for this research depended on the number of variables and the type of data. Based upon the assumption that there was a normal distribution of data and it was measured on an interval scale, the Pearson Correlation Coefficient best fitted the aims of this enquiry, namely to investigate the linear relationship between data sets, and to estimate the degree to which two sets of scores go together. Dean Brown (1988) adds support to the use of this statistical test for data analysis within the context of this research: *"this coefficient is appropriate for comparing two sets of interval data"* (p.97). A comprehensive computer software package, Statistical Package for the Social Sciences, (SPSS), was available to carry out the data analysis rather than manually calculating Pearson correlation coefficients. Data from the data set was highlighted and imported to SPSS and Pearson correlation coefficients, statistical significance and analysis of variance procedures were carried out. The Pearson correlation coefficient statistical test is an effective tool if it can indicate that an association or relationship is present between performance and creativity in modern foreign language use (the dependent variables) and cognitive ability, memory, language aptitude, motivation and attitude to foreign language learning. It was able to control the data in order to reveal the direction and strength of relationship between the dependent variables (performance and creativity in foreign language learning) and the selected learner characteristic. It enabled me as the researcher to judge whether the correlation was causative rather than coincidental and involved calculating a correlation coefficient symbolised as 'r.' At this point the data no longer resembled test scores, which were directly linked to pupil participants.

The value of the correlation coefficient was expressed as between +1 (plus one) and -1 (minus one). A perfect positive relationship of +1 (plus one) suggests a strong relationship between two sets of data with a reduced margin of error and effect of chance. General guidelines for interpreting correlation coefficients (based on Borg, 1963) suggest that correlations ranging from 0.20 to 0.35 are only showing a very slight relationship between variables, although they may be statistically significant. However, correlations ranging from 0.35 to 0.65 are more useful *“particularly when combined with other correlations in a multiple regression equation”* (Cohen and Manion, 1994, p.139). They comment that:

*“combining several correlations in this range can in some cases yield individual predictions that are correct within an acceptable margin of error”*  
(p.140).

However correlations at this level used singly cannot be said to be of use. Correlations from 0.65 to 0.85 “make group predictions that are accurate for most purposes” (p.140) and any correlations over 0.85 indicate a close relationship between the variables. If the value of a variable decreases as the value of another increases, then the relationship is negative. As it was not known what direction the data would take, the Pearson correlation test calculated the data as two-tailed so that a direction was interpreted from the results. The significance of the correlation was also calculated to look at its confidence level. This involved looking at the probability of repeating the research, using the same measures, with another group of foreign language learners as participants, processing their data and achieving the same results. It was not practical to actually do this and therefore a statistical calculation can express what the likelihood of a repeat result would be. A score of zero or close to it indicates an actual relationship exists, rather than a result due to chance. A significance level of 0.05,

means that the probability of the result occurring by chance is low at only 5%. This check within the correlation provided additional precision or rigour, which quantitative research demands. Analysis of variance was the further mechanism looking at the relationship between learner characteristics to see what they have in common with each other. The higher the percentage, calculated manually by squaring the coefficient, the greater the influence the learner characteristics appear to exert on each other and conversely, the fewer external influences on the result, such as chance or confounding learner characteristics and thus result reliability was confirmed.

The step-by-step correlation procedure is discussed in the following section of this chapter. Those research questions, which aim to identify the more reliable predictors singly and in combination, are highlighted.

### **Correlation procedure**

Research question:

Which individual learner characteristics consistently predict performance and creativity?

There were nine measures in total representing the selected learner characteristics and these were processed as single correlations using category one data (one hundred and nine participants).

There were two cognitive ability measures:

- 1. verbal reasoning**
- 2. non-verbal reasoning,**

two foreign language aptitude measures:

**3. York test**

**4. Modern Language Aptitude Test**

and five motivation measures:

**5. autism-optimism**

**6. general ability (IQ)**

**7. integration**

**8. personal interest**

**9. conflict-frustration**

The five motivation measures were calculated as sten scores from the School Motivation Analysis test (SMAT) and these were individually correlated with the dependent variable: performance in Modern Foreign Languages using National Curriculum levels in year eight as the measure.

In addition, single correlations were carried out using the category two (sub-group) data comprising fifty five participants. Data for auditory short-term memory and for attitude to foreign language learning measures were correlated with pupil performance in foreign languages (National Curriculum levels in year eight and year nine) and also with written and oral creative production. Consequently the sub-group data consisted of eleven measures analysed singly with four dependent variables namely, National Curriculum levels in year eight and nine and Oral creative production and Written creative production. These comprise the same nine measures correlated with the category one data and in addition the measures for auditory short term memory and for pupil attitude to foreign language learning.

The results of the single correlations are presented in the next chapter and this will point out those learner characteristics, which appeared to be associated with performance and creativity in using a foreign language and could be considered as potential predictors.

**Research Questions:**

Are any individual learner characteristics reliable predictors of foreign language performance if combined with other learner characteristics?

Are any individual learner characteristics reliable predictors of foreign language creativity if combined with other learner characteristics?

A statistical technique known as multiple correlation (stepwise regression) measured the degree of association between three or more learner characteristics simultaneously. Any independent learner characteristic that produced high single correlation values, either with performance or creativity, warranted further investigation using this technique. Regression was calculated to reveal if there were a group of characteristics which when combined were potential predictors of gifted foreign language performance and creativity. Using partial regressions intercorrelations were explored because a weak correlation result might be strengthened by the addition of another variable. Partial correlation estimated the relative importance of the learner characteristics as predictors involved in producing change in the dependent variables. Regression coefficients were converted to beta coefficients (which use a different scale) and these were tested to see if they were significantly different from zero. They were expressed as a probability value and were assessed for accuracy using a confidence level set at ninety to ninety five per cent.

Correlation analysis maintained the quantitative approach framing this research. The presentation and discussion of the results in the succeeding chapters will consider the findings based upon research hypotheses displayed in Table 5.5. These originate from the research questions which were revealed by the literature review and were presented in chapter four (pp.175-176). Each hypothesis incorporates a measure and expresses the directional decisions I have made regarding the existence and form of relationships between the selected learner characteristics and the selected indicators of performance and creativity: the dependent variables.

**Table 5.5: Research hypotheses**

**Single correlations: cognitive learner characteristics**

- H1: Verbal reasoning will correlate significantly with foreign language performance.
- H2: Verbal reasoning will correlate significantly with oral creative production in a foreign language.
- H3: Verbal reasoning will correlate significantly with written creative production in a foreign language.
- H4: Short term memory will correlate with foreign language performance.
- H5: Short term memory will correlate with oral creative production in a foreign language.
- H6: Short term memory will correlate with written creative production in a foreign language.
- H7: Foreign language aptitude will correlate with foreign language performance
- H8: Foreign language aptitude will correlate significantly with oral creative production in a foreign language.
- H9: Foreign language aptitude will correlate significantly with written creative production in a foreign language.
- H10: The York language aptitude test will correlate more significantly with foreign language performance than the Modern Language Aptitude test.

**Single correlations: affective learner characteristics**

- H11: Motivation will correlate with foreign language performance.
- H12: Motivation will correlate significantly with oral creative production in a foreign language.
- H13: Motivation will correlate with written creative production a foreign language



H14: The level of significance of motivation within the correlation will fluctuate over time.  
H15: Attitude to foreign language learning will correlate significantly with foreign language performance.  
H16: Attitude to foreign language learning will correlate significantly with oral creative production in a foreign language.  
H17: Attitude to foreign language learning will correlate with written creativity in a foreign language.

#### **Multiple regression: combined learner characteristics**

H18: Verbal reasoning and foreign language aptitude will combine as better predictors of foreign language performance than either alone.  
H19: Verbal reasoning and foreign language aptitude will combine as better predictors of written creative production in the foreign language learner than either alone.  
H20: Verbal reasoning and foreign language aptitude will combine as better predictors of oral creative production than either alone.  
H21: Foreign language aptitude, memory and motivation will combine as better predictors of foreign language performance than either alone.  
H22: Foreign language aptitude, memory and motivation will combine as better predictors of oral creative production in a foreign language than either alone.  
H23: Foreign language aptitude, memory and motivation will combine as better predictors of written creative production in a foreign language than either alone.

Each hypothesis refers to specific learner characteristics and one of the four variables. These variables are the learner characteristics identified as contributing towards foreign language learning and creative output. For example, verbal reasoning, is expected to correlate significantly with both performance and oral and written creative production in foreign language learning (H1, H2 and H3). Memory may correlate with performance and oral and written creative production (H4, H5 and H6)). Aptitude for foreign language learning could prove to be a predictor of performance (H7) and more significantly with oral and written creative production (H8 and H9). It is anticipated that the York test will outperform the Modern Language Aptitude test (H10).

Motivation is regarded as a learner characteristic that is not stable and could change according to task demands and setting. Hypotheses 11 -14 suggest that motivation will correlate with performance (H11) and written creative production (H13) and more significantly with oral creative production (H12) and the correlation strength will vary over time (H14).

Pupil attitude to learning foreign languages is a learner characteristic influenced by other individual learner characteristics and H15, H16 and H17 predict that there will be a correlation observed between this learner characteristic and with performance and oral and written creative production.

Some learner characteristics could prove to be reliable single predictors. If more than one characteristic is involved, regression analysis may emphasise which are present. A low score or lack of one characteristic could be compensated by the presence of another, a phenomenon that multiple correlation can identify (see H18-H23). The results from this research could provide more clarity into individual learner differences. If learner characteristics do correlate strongly with performance and creativity in foreign language learning and the results are statistically significant, then prediction would not simply highlight those pupils that can or should learn foreign languages but identify how individual pupils differ. The correlation research results will be presented in chapter six and analysed and accounted for in chapter seven. The wider implications of the research findings, including the use of predictors as diagnostic tools, will be postulated in chapter eight.

## **Chapter Six: Data Presentation**

The previous chapter introduced the range of research data required for research into the prediction of gifted performance in foreign language learning. There was an explanation of the data gathering devices, the subjects of the study, details of the statistical tests carried out and how they were interpreted for the purposes of this research. The data includes pupil test scores for the whole group, the category one data and category two data from the sub-group. Data representing the measures for the selected learner characteristics were correlated with the dependent variables and are now presented as follows:

- Table 6.1 and Table 6.2: National Curriculum Level in Modern Foreign Languages achieved at the end of year eight
- Table 6.3: National Curriculum Level in Modern Foreign Languages in year nine
- Table 6.4: Written creative production
- Table 6.5: Oral creative production Table

A Pearson Product Moment Correlation Analysis was carried out using all the measures for learner characteristics (potential predictors) and the dependent variables (predicted measures for performance and creativity) and the results are presented in tables. The following abbreviations used in the tables are listed in full:

n = number of subjects

c = Pearson product moment correlation coefficient

p = significance level (probability of chance occurrence)

\* = non significant result at  $p > 0.05$

v = variance (the effect the variables have on each other)

**Table 6.1: Single correlation of: verbal reasoning, York Language Aptitude test, Modern Language Aptitude Test, general ability / IQ, non-verbal reasoning, conflict / frustration, integration / personality, autism / optimism, personal interest with National Curriculum level in Modern Foreign Languages in year eight (Category one data).**

<b>PREDICTOR</b>	<b>n = 108</b>
Verbal Reasoning	c.0.410 p.0.000 v.16.8
York Language Aptitude Test	c.0.388 p.0.000 v.15.05
Modern Language Aptitude Test	c.0.342 p.0.000 v.11.69
General Ability/IQ (Motivation Test)	c.0.224 p.0.010 v.5.01
Non-Verbal Reasoning	c.0.209 p.0.015 v.4.36
Conflict/Frustration (Motivation Test)	c.-0.198 p.0.020 v.3.92
Integration/Personality (Motivation Test)	c.0.167 p.0.042 v.2.78
Autism-Optimism (Motivation Test)	c.-0.097 p.*
Personal Interest (Motivation)	c.0.063 p.*

These results show that there appear to be some relationships between the dependent variable: National Curriculum level in Modern Foreign Languages in year eight and the following measures for: verbal reasoning; the Modern Language Aptitude test; general ability / IQ (a measure from the motivation test); non- verbal reasoning and integration, another motivation measure. Table 6.1 presents the results rank order of correlation strength with the stronger correlation results ranked higher in the table.

Verbal reasoning skills correlate the most strongly with the dependent variable at + 0.410 with a significance of 0.00. The relationship is a positive one, which means the scores for each variable fluctuate in the same direction. The level of statistical significance at zero (0.00) means it can be very confidently assumed that this moderate, positive relationship between the two variables is not purely down to chance. The coefficient for verbal reasoning is 0.410. Its' square, which is 0.168, is described as 16.8%. This means 16.8% of the variance is common to the two measures. Thus, verbal reasoning scores represent or explain 16.8% of the relationship between the two variables. The other 83.92% of the relationship is due to other factors.

The next two predictors that correlate and demonstrate a weak, positive relationship with National Curriculum Level in Modern Foreign Language Levels at the end of Year Eight are the two Foreign Language Aptitude tests. Aptitude is one's ability to acquire knowledge and develop skills. The University of York test and the Modern Language Aptitude Test are two measures designed to predict learning success in a foreign language. The York Language Aptitude test ranks second in correlation strength and correlates at 0.388 with a significance of 0.0. The Modern Language Aptitude Test correlates at 0.342 with a significance of 0.0. Both of these predictors have produced similar results, which may strengthen the suggestion that there is an actual relationship existing than rather than two sets of results due to chance. Analysis of variance indicates that 15.05% of the relationship with the dependent variable can be attributed to the effect of this particular measure. The variance level calculated for the Modern Language Aptitude Test is 11.69%, which is the amount contributed by this independent variable to its relationship with the dependent variable. The

remaining percentage in both cases can be accounted for by the effect other factors have on this relationship.

The fourth ranked predictor is a Motivation component from the School Motivation Analysis Test (SMAT). This is the General Ability / Intelligence Quotient measure which provides an indication of general academic ability. This component of the motivation test is measured by an individual's responses to the general information questions within the ninety-item battery. A pupil who is consistently interested in a particular field will know more about it and this motivation trait corresponds to general intelligence or ability according to the test authors (Krug, Sweney and Cattell, 1970 p.7) When this measure was computed with National Curriculum Level in Modern Foreign Language at the end of Year Eight it produced a positive correlation coefficient of 0.224. This is a weaker relationship and the significance level has moved slightly away from 0.000 to 0.001, which means there is a slightly lower confidence level. Analysis of variance produces a result of 5.01%. Therefore 94.09% of the relationship between this motivation measure and NC level is explained by other factors, which are exerting a much greater influence.

Non-verbal reasoning scores have produced a coefficient of 0.209 when correlated with the dependent variable. This is another positive, very slight relationship and 4.3 % of variance is common between the two variables. The confidence level has dipped further as the statistical significance is slightly above zero at 0.015. There is now a 1.5% probability that the result is due to chance factors.

One other measure, which when processed indicated a slight, positive relationship was another Motivational Component, namely, Integration. This according to the School Motivation Analysis Test is used as a measure of the energy put into realising one's goals or ambitions and is used as an indicator of personality type. The coefficient is 0.167 and the significance is 0.042. The variance at 2.78% also statistically confirms that Integration contributes 2.78% to the relationship with the dependent variable and the remaining percentage can be explained by other factors.

The results after correlation of the two remaining variables in Table 6.1 do not show a significant statistical relationship between National Curriculum level in Modern Foreign Languages in year eight and autism- optimism (a motivation drive component from the School Motivation Analysis test) nor with personal interest (an additional motivation drive from the same test). These particular results suggest that the occurrence is due to chance factors exerting some influence on this data.

## **Summary**

The outcome of the single correlations, using category one data, is that a number of independent variables correlate with the dependent variable, that of pupil performance using a target foreign language, measured by National Curriculum level in Modern Foreign Languages at the end of year eight. The three measures correlating most strongly are related to cognitive ability foreign language skill, namely, **verbal reasoning** and **foreign language aptitude** and the remaining results include one measure of affective learner characteristics namely **motivation** and finally **non-verbal reasoning**. Verbal reasoning skills correlate most strongly, followed by foreign

language aptitude (using both the York and Modern Foreign Language Aptitude test measures). A broad general ability / intelligence measure from the School Motivation Analysis test is the next variable to correlate quite strongly, followed to a lesser degree by non-verbal reasoning skills and a second motivation measure described as integration or personality. An interpretation of this set of results will be discussed in the next chapter. The second group of single correlations shown in Table 6.2 produces a different pattern or arrangement of results using the category two data from the sub-group. The results are introduced and presented in a rank order of correlation strength.

The test scores for the sub-group were processed independently of the whole group. The results suggest a number of significant relationships existing between the dependent variable and the following independent variables as potential predictors: verbal reasoning; the York language aptitude test; pupil attitude to foreign language learning (based on the pupil questionnaire); the Modern Language Aptitude Test; non-verbal reasoning; general ability/ I.Q, one of the motivation components from the School Motivation Analysis Test and auditory short term memory. The results in Table 6.2 are presented in descending order starting with the predictor producing the strongest correlation result, which is verbal reasoning, to the predictor producing the weakest correlation, auditory short term memory.



**Table 6.2: Single correlation of verbal reasoning, York Language Aptitude test, Attitude to Learning Languages Questionnaire, Modern Language Aptitude Test, non-verbal reasoning, general ability / IQ, auditory short term memory, conflict / frustration, integration / personality, autism / optimism, personal interest with National Curriculum level in Modern Foreign Languages in year eight (category two data).**

**PREDICTOR**

**n= 55**

Verbal Reasoning	c.0.459 p.0.000 v.21.07
York Language Aptitude Test	c.0.414 p.0.002 v.17.03
Attitude to Learning Languages Questionnaire	c.0.400 p.0.003 v.16.00
Modern Language Aptitude Test	c.0.319 p.0.017 v.10.17
Non-Verbal Reasoning	c.0.265 p.0.051 v.7.02
General Ability/IQ (Motivation Test)	c.0.256 p.0.059 v.6.55
Auditory Short Term Memory Test	c.0.222 p.0.104
Conflict/Frustration (Motivation Test)	c.-0.154 p.*
Integration/Personality (Motivation Test)	c.0.120 p.*
Autism-Optimism (Motivation Test)	c.-0.049 p.*
Personal Interest (Motivation Test)	c.0.037 p.*

Verbal reasoning correlates the most strongly with the dependent variable at + 0.459 with a significance of 0.000. This relationship is fairly strong and positive, with the

scores for the dependent and independent variable fluctuating in the same direction. This is a slightly stronger correlation than that using the category one data, for the whole group. The significance level at zero means it can be confidently interpreted that the results are not due to chance and a relationship does exist between the two variables. In fact the probability of chance affecting the result is calculated at 0%. Looking next at the amount the two variables have in common (analysis of variance), this is interpreted at 21.07% and verbal reasoning explains 21.07% of the relationship.

The next predictor to correlate strongly is the York Language Aptitude Test which has a correlation coefficient of +0.414 indicating another moderately strong, positive relationship exists between this foreign language aptitude test and the dependent variable. The significance of this result is calculated at 0.002, which is another strong confidence level, indicating the results are not likely to be by chance. A variance level of 17.13%, leads one to understand that 17.13% of the relationship can be explained by the effect of the independent variable (the York test) on the dependent variable.

The Attitude to Learning Languages Questionnaire was a measure that was applied to the sub-group only. This group of fifty five pupils completed the questionnaire, designed by the researcher for the purposes of this research during the latter part of 1998. The individual scores were correlated with the dependent variable and the resultant correlation coefficient was 0.400. This is moderate, positive correlation, suggesting that there may be a relationship between a pupil's attitude to learning a foreign language in school and their performance in that language in their end of year eight assessment. The significance level has moved slightly from 0.000 to 0.003, which means that the confidence level in the result being due to a relationship between

the variables is 99.97%. Variance level at 16% also shows a relationship exists and that 16% is explained by the effect of this variable.

The scores for the sub-group for the Modern Languages Aptitude test, used as a measure for the whole group, were also correlated with the sub-groups National Curriculum levels in Modern Foreign Languages at the end of year eight. The coefficient that resulted was 0.319, a weak positive relationship with a lower confidence level as suggested by the significance level of 0.017. The variance between the dependent and independent variable is 10.17%, which means that this percentage of the relationship can be accounted for by the effect of the two variables.

Non-verbal reasoning scores when correlated with the National Curriculum level in Modern Foreign Languages in year eight resulted in a coefficient of 0.0265. This slight, positive relationship has a significance level of 0.051. Chance affecting the result is calculated at 5.1% and 7.02% variance is common to the two measures. Their effect accounts for 7.02% of the relationship.

General ability / I.Q is one of five component measures identified using the School Motivation Analysis Test. When the scores from this test were correlated with the dependent variable, the resulting coefficient of 0.256 indicates only a slight, positive relationship and the significance level of 0.059 indicated a lower confidence level. The percentage variance was calculated to be 6.55% explaining the relationship between the dependent and independent variable. They contributed 6.55% to the correlation and thus the remainder is due to other, presently unaccounted for factors. Consideration of what causes this result will be discussed in chapter seven.

The results for the next measure were included because one of the original research questions relates to a possible relationship between memory and performance since many of the Cambridgeshire Languages Teachers had responded to the survey conducted by Jones (1991) that a good memory would contribute to a foreign language learner being a good learner. Auditory memory could therefore be a useful predictor of ability and creativity in Modern Foreign Language learning. However, when auditory short term memory scores were correlated with performance using the dependent variable, National Curriculum level in Modern Foreign Languages in year eight, the results are unremarkable and show only a very slight, positive relationship indicated by a correlation coefficient of 0.222 and a significance level of 0.104. The variance, at 4.92, suggests that 4.92% of the relationship between the two variables, auditory short-term memory and National Curriculum Level in Modern Foreign Languages in year eight can be explained by their effect on each other.

The remaining data presented in Table 6.2 demonstrates that there are four remaining measures which do not reflect any statistically significant correlation with National Curriculum level in Modern Foreign Languages in year eight using the category two data which represents the sub-group of fifty five language learners. These are four of the five components of the School Motivation Analysis test: conflict / frustration, integration, autism / optimism and finally personal interest. There is no correlation existing with these four motivation drives although general ability / IQ, the fifth component does correlate. This particular outcome will be discussed in chapter seven.

## **Summary of single correlation**

The results from this set of single correlations demonstrate some similarities with the whole group data. Cognitive learner characteristics namely, **verbal reasoning** correlate most strongly and there are **two foreign language aptitude measures** correlating second and fourth. **Pupil attitude to foreign language learning** ranks third in the strength of correlation. Non-verbal reasoning ranks fifth and general ability / IQ, a component from the motivation measure, is ranked sixth. Auditory short-term memory does not correlate significantly. Five of the variables occur in both sets of results: verbal reasoning and non- verbal reasoning, the York language aptitude test, the Modern Language Aptitude Test and general ability / IQ, the motivation measure. Integration (a motivation measure) correlates significantly with the dependent variable using the whole group data but does not with the sub-group.

## **Correlation results using category two data only**

The sub-group of fifty-five pupils was selected as a more manageable mechanism for testing purposes. Further tests were implemented and the data was also processed using Pearson Product Moment Correlation Analysis. The group was assessed at the end of year nine using National Curriculum levels for Modern Foreign Languages as a measure of performance in foreign language learning after three academic years of study of the chosen foreign language. Pupil creativity in using a foreign language was tested using a measure I designed and piloted and thus was able to assess and evaluate pupil creativity with the written and spoken target language. The test scores were processed as dependent variables. The results are presented in Tables 6.3, 6.4 and 6.5.

The qualitative data from the pupils’ written and oral responses to the creativity tests is included in this chapter following the presentation of the results after regression.

**Table 6.3 Single correlation of: Attitude to Learning Languages questionnaire, conflict / frustration, integration / personality, verbal reasoning, autism-optimism, York Language Aptitude Test, personal interest, Modern Language Aptitude Test, auditory short term memory test, general ability / IQ, non-verbal reasoning with National Curriculum level in Modern Foreign Languages in year nine (category two data).**

PREDICTOR	n= 52
Attitude to Learning Languages Questionnaire	c.0.575 p.0.000 v.33.06
Conflict/Frustration (Motivation Test)	c-0.365 p.0.004 v.13.32
Integration/Personality (Motivation Test)	c.0.314 p.0.012 v.9.85
Verbal Reasoning	c.0.281 p.0.022 v.7.89
Autism-Optimism (Motivation Test)	c-0.281 p.0.022 v.7.89
York Language Aptitude Test	c.0.186 p.0.094 v.3.45
Personal Interest (Motivation Test)	c-0.175 p.*
Modern Language Aptitude Test	c.0.170 p.*
Auditory Short Term Memory Test	c.0.125 p.*
General Ability/IQ (Motivation Test)	c-0.022 p.*
Non-Verbal Reasoning	c-0.017 p.*

When the scores from the sub-group data were processed with the dependent variable National Curriculum Level in Modern Foreign Language in year nine, the results in Table 6.3 indicate a number of associations or relationships exist. Firstly, the pupil attitude to learning languages questionnaire produced a correlation coefficient of 0.575, quite a strong positive relationship supported by a significance value of 0.0. When the coefficient is used to calculate the percentage variance, the result at 33.06% indicates a noticeable effect and the remaining 66.94% of the relationship is explained by the influence of other predictors and other factors.

The next independent variable that demonstrates a relationship is present, is a negative relationship expressed by the frustration / conflict measure, which is the fifth component of the School Motivation Analysis Test. A correlation coefficient of - 0.0365 indicates that one variable does exert an influence on the other and this actually means that whilst the scores for one variable increase, the scores for the other variable decrease. The significance level of 0.004 indicates a confidence level, which supports the existence of a relationship actually existing even further. The variance of 13.32% also points to effect taking place as a result of the relationship between the variables.

Another component of the School Motivation Analysis Test features next as the third ranked most significant correlation. This is the personality drive described as 'integration', which can be construed as one's desire to express oneself. This resulted in a coefficient of 0.314 after processing with the dependent variable. This is not a strong relationship yet it has a statistical significance of 0.012, thus confirming the relationship exists with a high degree of confidence (98.8%). The variance percentage

of 9.85 also acknowledges that there is some effect present and that almost 10% of this is due to the predictor and the predicted having something in common.

Verbal reasoning scores also correlate with the dependent variable and the result of 0.281 and its significance level of 0.022 also confirm that some effect is present. Up to 7.89% of this effect can be explained with some confidence by the relationship between verbal reasoning and National Curriculum Level in Modern Foreign Languages as the dependent variable.

Another School Motivation Analysis Test component features next and is ranked fifth in table 6.3. The personality drive described as autism–optimism produces a coefficient of  $-0.186$ , which is a negative relationship, with the scores for each variable fluctuating in different directions. The significance level of 0.022 indicates that there is some confidence in this not being influenced by chance and the % variance at 7.89% also confirms that the two variables exert this amount of influence or effect on each other thus supporting the existence of a relationship..

Finally, the York language aptitude test scores when processed with the Modern Foreign Language National Curriculum Level in year nine also suggested a slight, positive relationship exists. As this is the sixth ranked variable to be highlighted by this correlation technique, the coefficient of  $0.186$  is at the lower end and the significance level of 0.094 does reflect a much lower confidence level. The two variables can be said to have a slight effect or influence on each other and the analysis of variance calculated at 3.45% indicates that of the total strength of the association between the two, 3.45 %, is explained by their effect on the relationship and the rest of



the correlation is due to other factors exerting an influence. This result would thus be said to be of statistical use at this magnitude.

The remaining variables in Table 6.3 are presented to demonstrate that no significant statistical relationship can be construed after correlation between the measure for performance, National Curriculum level in Modern Foreign Languages in year nine with Personal Interest (motivation measure component), the Modern Languages Aptitude Test, Auditory Short Term Memory, General Ability / IQ and non-verbal reasoning.

## **Summary**

The dependent variable correlates with affective learner characteristics namely, **pupil attitude to foreign language learning**, and with **three motivation measures** as stated including: frustration/conflict, integration/personality and autism/optimism. Verbal reasoning does correlate (0.281) although less strongly than with the previous dependent variable National Curriculum Level in Modern Foreign Languages in year eight at (0.459). Attitude has correlated with both dependent variables (0.575 and 0.400 respectively). The York language aptitude test also correlates with both (0.414 and 0.186) and also correlates more strongly with the performance measure National Curriculum level in Modern Foreign Languages in year eight than with the performance measure for year nine.

The two dependent variables which have had results presented at this stage are National Curriculum level in Modern Foreign Languages in year eight and National

Curriculum level in Modern Foreign Languages in year nine have not correlated with auditory short term memory nor with the second component in the School Motivation Analysis Test, the motivation measure known as ‘personal interest’. This will be discussed in chapter seven.

**Written creative production**

**Table 6.4: Single correlation of Attitude to Learning Languages Questionnaire, integration, autism-optimism, conflict / frustration, Modern Language Aptitude Test, general ability / IQ, personal interest, verbal reasoning, non-verbal reasoning, York Language Aptitude Test, auditory short term memory test with Written creative production (category two data).**

PREDICTOR	n= 54
Attitude to Learning Languages Questionnaire	c.0.383 p.0.002 v.14.6
Integration (Motivation Test)	c.0.273 p.0.023 v.7.45
Autism-Optimism (Motivation Test)	c.-0.218 p.0.057 v.4.75
Conflict/Frustration (Motivation Test)	c.-0.209 p.0.065 v.4.36
Modern Language Aptitude Test	c.0.184 p.0.092 v.3.38
General Ability/IQ (Motivation Test)	c.-0.178 p.0.099 v.3.16
Personal Interest (Motivation Test)	c.-0.171 p.*
Verbal Reasoning	c.0.140 p.*
Non-Verbal Reasoning	c.0.130 p.*
York Language Aptitude Test	c.0.128 p.*
Auditory Short Term Memory Test	c.-0.035 p.*

This is the first of the two creativity dependent variables processed with data from category two only and Table 6.4 introduces and presents the results after processing in correlation strength rank order.

There are six measures which present correlation coefficients inferring some statistical significance and five measures which do not, which are presented in Table 6.4 above. The first four measures represent affective learner characteristics. Pupil attitude to foreign language learning ranked first, tested using a pupil questionnaire and this correlates with a coefficient of 0.383. This has a significance level of 0.002, which is a strong confidence level and does suggest there is some association or relationship present. It is a positive relationship and an analysis of variance result of 14.6 indicates that 14.6% of the relationship between the two variables is explained by the effect of this independent variable.

The independent variable ranked second in Table 6.4 is the 'personality' component of the School Motivation Analysis Test. This is described as 'Integration' and is a measure of the energy put into realising one's goals. The coefficient of 0.273 suggests a slight relationship between written creative production in foreign languages and this personality trait. The significance level of 0.023 indicates the confidence level that there is a relationship existing between the two variables. By calculating the variance it is noted that 7.45% of this relationship is explained by the effect of integration on the dependent variable.

Autism / optimism, is another measure of motivation from the School Motivation Analysis Test, which correlates with the dependent variable written creative

production, and produces a negative result of  $-0.218$ . This means that one set of scores decreases as the others increases. This is a slight relationship and a significance level of 0.057 shows that the probability of chance affecting the result is 5.7%. A score of 4.75 is interpreted as 4.75% of the relationship being due to their association.

The next independent variable, ranked fourth, which suggests an association or relationship with written creative production in foreign languages, is a further component from the School Motivation Analysis Test, the measure which is described as frustration /conflict. This is 'inner conflict' and relates to the amount of energy available for goal-directed behaviour. In the School Motivation Analysis Test manual (p.8), it is described as the "summary of examinee's general frustration level". The coefficient resulting from the correlation processing is  $-0.209$ . A relationship is present; it is negative or inverse, reflecting one set of scores for one of the variables decreasing as the scores for the other variable are increasing. It is a slight relationship and its statistical significance level is 0.065. Confidence level is weaker at 93.5% because the level has moved above 0.05 and this suggests the probability of chance affecting the result is at 6.5%, so is not considered as statistically significant. Variance is 4.36 and this means 4.36% of the relationship between written creative production and conflict / frustration is explained by their effect on each other.

The remaining two variables in Table 6.4, which do reflect positive although slight relationships with Written creative production, are cognitive learner characteristics. Foreign language aptitude, tested using the recently revised version of the Modern Language Modern Aptitude Test is ranked fifth, and has a slight, positive relationship with written creative production. The coefficient is 0.184 and the significance level is

0.092, which is a low confidence level. There is a probability of 9.2% that chance is exerting some influence. There is still some association existing between the two variables, however there are other factors also exerting an influence on the relationship. When variance level is analysed the score of 3.38 confirms that 3.38% of the relationship is due to the influence conflict / frustration, as an indicator of motivation, may have on written creative production in foreign languages.

The final independent variable (ranked sixth on table 6.4) which indicates there is a very slight, negative relationship is the second motivation component in the School Motivation Analysis Test, the general ability / IQ measure and thus a cognitive learner characteristic. The coefficient is  $-0.178$ , which is a very slight, negative relationship, with a confidence or significance level of 0.099, indicating there is a probability of 9.9% that chance is affecting this result. Other factors exert an influence on written creative production. Analysis of variance confirms this, with a score of 3.16. This means that 3.16% of this slight relationship is accounted for by the influence of the two variables.

There are five measures presented at the bottom of the table namely: Personal Interest, and four cognitive learner characteristics: Verbal Reasoning, Non-verbal reasoning, the York Language Aptitude test and Auditory Short Term Memory. Correlation with the dependent variable has not produced statistically significant results as evidence that can suggest these variables are associated with Written creative production.

## **Summary of written creative production as the dependent variable**

Written creative production correlates most strongly with **pupil attitude to foreign language learning**, and has a slight relationship with one **foreign language aptitude** measure, ranked as fifth. Four of the five components of the **motivation** measures: integration, autism/optimism, frustration/conflict and general ability/IQ are ranked as second, third, fourth and sixth.

## **Oral creative production**

There are seven variables, which produce statistical evidence of correlation and Table 6.5 shows the results in descending order of correlation strength. The remaining four variables that do not correlate with Oral creative production are presented at the foot of the table.

The independent variable: pupil attitude to foreign language learning measured as an individual score on the Pupil Attitude to Learning Languages Questionnaire (Faulkner, 1998) shows the strongest correlation. A correlation coefficient of 0.485 demonstrates firstly that a relationship does appear to exist between pupils' attitudes to foreign language learning and oral creative production. When correlations are around 0.40, "*crude group predictions may be possible*" according to Cohen and Manion (1994, p139). The nature of the relationship between attitude and creativity will be discussed at a later stage. The significance of the correlation was also tested, using the same data and at 0.00 confirms a strong confidence level. The relationship is partly due to the influence the two variables exert on each other and is scrutinised further by analysing the variance between the dependent variable and this particular independent variable.

The result of 23.52, means that 23.52% of the relationship is explained by the influence the pupil attitude variable has on oral creative production.

**Table 6.5: Single correlation of: Attitude to Learning Languages Questionnaire, integration, conflict / frustration, autism-optimism, verbal reasoning, personal interest, York Language Aptitude Test, Modern Language Aptitude Test, general ability / IQ, auditory short term memory test, non-verbal reasoning with Oral creative production (category two data).**

PREDICTOR	n= 54
Attitude to Learning Languages Questionnaire	c.0.485 p.0.000 v.23.52
Integration (Motivation Test)	c.0.391 p.0.002 v.15.28
Conflict/Frustration (Motivation Test)	c.-0.377 p.0.002 v.14.21
Autism-Optimism (Motivation Test)	c.-0.318 p.0.010 v.10.11
Verbal Reasoning	c.0.270 p.0.024 v.7.29
Personal Interest (Motivation Test)	c.-0.231 p.0.046 v.5.33
York Language Aptitude Test	c.0.189 p.0.085 v.3.57
Modern Language Aptitude Test	c.0.169 p.*
General Ability/IQ (Motivation Test)	c.-0.168 p.*
Auditory Short Term Memory Test	c.0.047 p.*
Non-Verbal Reasoning	c.0.029 p.*

The next three variables, which appear to be demonstrating a correlation with oral creative production, are components from the motivation test (School Motivation Analysis Test). Firstly, integration, the personality measure, which is described by the test authors, Cattell, Krug and Sweney (1970) as “*an indication of the extent of disciplined, realized expression of the individual’s goals*” (p.11). The coefficient of 0.391 indicates that a weak, positive relationship does exist. It is statistically significant with a confidence level of 0.002. Analysis of variance to ascertain how much this predictor is associated with oral creative production is at 15.28%.

A second motivation measure: conflict / frustration is ranked third. This is the personality characteristic that is concerned with one’s inner frustration, and the subsequent energy put into achieving one’s goals. A correlation coefficient of – 0.377 shows that there is a slight negative relationship between Oral creative production and this motivation component from the School Motivation Analysis Test. Whilst the correlation is not strong, the significance level at 0.002 indicates that the relationship is not due to chance and thus confidence would be high that in the event of repeating this part of the test using other pupil data, the results would be the same. Variance, when calculated, is 14.21%, which means these variables share something in common and their association accounts for 14.21% of the relationship.

Autism / optimism is the third component measure from the motivation test which appears to have some relationship with oral creative production. The result is –0.318, another slight, negative relationship which statistically is significant with a value of 0.01. Variance is 10.11%, describing the relationship between the variables.



Verbal reasoning is the next predictor, ranked in fifth position in Table 6.5, demonstrating that there is statistical evidence of a relationship between itself and oral creative production. The coefficient is 0.27 so this slight relationship is positive and is significant at 0.024. Even though the relationship between the variables is not close, it is still significant and the probability of chance affecting the results is calculated at 2.4%. A calculation of the variance between the variables is 7.29% and shows a relationship exists between the variables.

Another motivation measure is ranked as the sixth most strongly correlated. The relationship between oral creative production and 'personal interest' is described by the correlation coefficient of  $-0.231$ . This is a slight, negative relationship, which means that the test scores for one variable fluctuate in the opposite direction to the test scores for the other variable. The relationship is less significant with a level of 0.046, which means slightly less confidence that chance factors are not involved. The analysis of variance produces a result of 5.33%, suggesting that the two variables explain this proportion of the correlation, and thus have something in common.

Finally, the York Language Aptitude test produces a correlation result when computed with oral creative production. The coefficient of 0.189 shows a very slight, positive statistical relationship and the significance of this is 0.085, which tends towards the correlation being described as statistically not significant. Variance is 3.57% and the slight relationship expressed by the coefficient is therefore accounted for by the two variables having a slight influence on each other.

Four cognitive learner characteristics are failing to produce any significant correlation results with Oral creative production. The Modern Language Aptitude Test is ranked eighth and General ability / IQ, the cognitive learner characteristic embedded as a component in the School Motivation Analysis Test is ranked ninth. The Auditory Short Term Memory test is ranked tenth and the variable with the weakest link is non-verbal reasoning.

### **Summary of oral creative production**

Oral creative production correlated with seven independent variables which are predominantly affective learner characteristics: **pupil attitude to foreign language learning** correlated most strongly, followed by **four motivation measures**, ranked second, third, fourth and sixth. Verbal reasoning correlates slightly and the York language aptitude test produces a very slight relationship. Some of these independent variables also correlated with written creative production notably pupil attitude to foreign language learning, integration, conflict/frustration and autism/optimism. Both independent variables each correlate with a different foreign language aptitude test: oral creative production correlates more strongly with the York test and written creative production with the Modern Language Aptitude Test. Only oral creative production correlates with verbal reasoning. These results and the implications will be discussed in more detail in chapters seven and eight respectively. The only independent variable, which has not correlated with either measure of creativity is auditory short term memory. Verbal reasoning has correlated with all the dependent variables except with written creative production. The York language aptitude test has a tendency to rank more highly and more frequently than the Modern Language

Aptitude Test. Motivation measures have correlated with the variables, integration and general ability/IQ most frequently and personal interest only once.

The next step was to investigate whether a particular combination of measures

Figure 6.1 provides a summary of the results after single correlation to demonstrate the type of learner characteristic present in each correlation. The corresponding coefficient shows the relative strength of the correlation in rank order. Cognitive learner characteristics are highlighted to indicate their distribution across the five single correlation calculations. This technique points out frequency (the number of cognitive learner characteristics presenting a correlation result), and the strength of the correlation characterised by the rank order of each within the five single correlations carried out over time with category one and two data.

Languages in years eight and year nine and written and oral creative production.

**Figure 6.1: A SUMMARY OF SINGLE CORRELATION RESULTS**

The results are presented in Tables 6.5 – 6.10 and include predictors which correlate

NC Level in MFL Y8 Category One	NC level in MFL Y8 Category Two	NC level in MFL Y9 Category Two	Written Creative Production	Oral Creative Production
VERBAL REASONING c.0.410	VERBAL REASONING c.0.459	PUPIL ATTITUDE c.0.575	PUPIL ATTITUDE c.0.383	PUPIL ATTITUDE c.0.485
YORK TEST c.0.388	YORK TEST c.0.414	CONFLICT/ FRUSTRATION c.-0.365	INTEGRATION/ PERSONALITY c.0.273	INTEGRATION/ PERSONALITY c.0.391
MLAT c.0.342	PUPIL ATTITUDE c.0.400	INTEGRATION/ PERSONALITY c.0.314	AUTISM/ OPTIMISM c.-0.218	CONFLICT/ FRUSTRATION c.-0.377
GENERAL ABILITY /IQ c.0.224	MLAT c.0.319	VERBAL REASONING c.0.281	CONFLICT/ FRUSTRATION c.-0.209	AUTISM/ OPTIMISM c.-0.318
NON-VERBAL REASONING c.0.209	NON-VERBAL REASONING c.0.265	AUTISM/ OPTIMISM c.-0.281	GENERAL ABILITY / IQ c.-0.178	VERBAL REASONING c.0.270
CONFLICT/ FRUSTRATION c.-0.198	GENERAL ABILITY/ IQ c.0.256	YORK TEST c.0.186		PERSONAL INTEREST c.-0.231
INTEGRATION/ PERSONALITY c.0.167				YORK TEST c.0.189

## **Regression**

The next step was to investigate whether a particular combination of measures (independent variables) could usefully predict performance and creativity in Modern Foreign Languages (the dependent variables). There may or may not be a group of two or more independent variables which work together. The data from the original data set, which stores scores for the eleven measures was processed using Statistical Package for Social Sciences (SPSS-X) to compute and search for multiple correlations. The results may indicate a combination of predictors which increase in power and statistical significance and reveal other relationships existing with the predicted dependent variables namely, National Curriculum levels for Modern Foreign Languages in years eight and year nine and written and oral creative production.

The results are presented in Tables 6.6 – 6.10 and include predictors which correlate well or which display partial correlations depending on the combination of predictors.

- Table 6.6 Regression (multiple correlation) of National Curriculum level in Modern Foreign Languages in year eight (category one data) with independent variables
- Table 6.7 Regression of National Curriculum level in Modern Foreign Languages in year eight (category two data) with independent variables
- Table 6.8 Regression of National Curriculum level in Modern Foreign Languages in year nine (category two data) with independent variables

- Table 6.9 Regression of Written creative production (category two data) with independent variables
- Table 6.10 Regression of Oral creative production (category two data) with independent variables

Table 6.6 presents the results after regression of the data from the pupil scores for the whole group with the dependent variable National Curriculum level in Modern Foreign Languages in year eight, the first performance indicator.

**Table 6.6: Regression of verbal reasoning and York Language Aptitude Test with National Curriculum level in Modern Foreign Languages in year eight (category one data).**

PREDICTOR		n= 108
Verbal Reasoning		c.0.410 p.0.000
York Language Aptitude Test		c.0.178 p.0.067

This result shows that when all the independent variables were correlated together they did not associate to indicate that a particular cluster of factors could be more usefully used as combined predictors of performance. Verbal reasoning, the variable, which correlates most strongly with the dependent variable (the single correlation result demonstrated this in Table 6.1), has produced a coefficient of 0.410. This remained constant when other independent variables including: non-verbal reasoning, the York foreign language aptitude test, Modern Language Aptitude Test, and the five components from the School Motivation Analysis Test were excluded or partialled out

to establish if there were other relationships existing between variables (which did not relate to the dependent variable). There were none that produced a meaningful pattern that could be interpreted as significant. Table 6.6 includes the York Language Aptitude test as the variable, which demonstrates that it actually weakens the strength of correlation coefficient when processed with verbal reasoning and the statistical significance of the result. This regression outcome is therefore negative as no multiple correlation is present.

The second set of multiple correlations produced a more promising, quantifiable result. Table 6.7 shows the results of regression using the category data from the sub-group, keeping the dependent variable constant. The category two data includes additional measures administered only with the sub-group and these include the pupil questionnaire surveying attitude to learning languages, the auditory short term memory test and the oral and written creative production tests.

**Table 6.7: Regression of: verbal reasoning, Pupil Attitude to Learning Languages Questionnaire and Integration with National Curriculum level in Modern Foreign Languages in year eight (category two data).**

PREDICTOR	n=55
Verbal Reasoning	c.0.459 p.0.000
Attitude to Learning Languages Questionnaire	c.0.591 p.0.002
Integration (Motivation Test)	c.0.639 p.0.030

When these variables are correlated singly with National Curriculum level for Modern Foreign Languages in year eight: as Table 6.2 shows, verbal reasoning correlates the

most strongly with a coefficient of 0.459, attitude to foreign language learning ranks third with a coefficient of 0.400 and integration (motivation measure) correlates at 0.095 with a significance of 0.2. The purpose of rank ordering the single correlation results is to depict the decline in correlation strength and also in statistical significance. However, the results in Table 6.7 show a particular pattern is emerging. When verbal reasoning, attitude to learning languages and integration are combined together they increase the correlation value. Verbal reasoning correlates with a coefficient of 0.458 with a significance of 0.0. Attitude to foreign language learning is combined and the result at 0.591 with a statistical significance of 0.002, is a slightly stronger correlation. A further independent variable, integration, when added also combines and an even stronger correlation results with a coefficient of 0.639 and a significance of 0.030. This is quite a high confidence level and indicates that the combined effect of the independent variables on the dependent is due to an actual, positive relationship existing and the probability of the result being due to chance is very low at 3%.

The relationship with the dependent variable strengthens as additional variables are added. The regression shows that these three variables are inter-correlated and regression has highlighted these independent variables, which together have some significant effect on the dependent variable.

The next set of regressions used the data from the subgroup with the dependent variable National Curriculum level in Modern Foreign Languages in year nine.

**Table 6.8: Regression of: Attitude to Learning Languages Questionnaire and verbal reasoning with National Curriculum level in Modern Foreign Languages in year nine (category two data).**

PREDICTOR		n=52
Attitude to Learning Languages Questionnaire	c.0.575 p.0.000	
Verbal Reasoning	c.0.626 p.0.031	

Table 6.8 above shows that two independent variables combine to produce a stronger correlation result. Attitude to language learning correlates most strongly with the dependent variable National Curriculum level in Modern Foreign Languages in year nine with a coefficient of 0.575 and a significance of 0.0. When an additional independent variable, namely, verbal reasoning, is added to the correlation the result is an increase in strength to 0.626 with a significance of 0.031. This indicates that there is a relationship and the two independent variables have a significant effect on the dependent variable. If variance is calculated then the resulting percentage will demonstrate the combined influence of the independent variables. 39.2% indicates this is the amount of the correlation, which is explained by their association.

Regression of written creative production with the independent variables was the penultimate data processing task. After this was carried out the following result occurred using the data from the sub-group (category two data), presented in Table 6.9



**Table 6.9: Regression of: Attitude to Learning Languages Questionnaire with Written Creative Production (category two data).**

PREDICTOR		n=54
Attitude to Learning Languages Questionnaire		c.0.383 p.0.004

Attitude to Language Learning correlates singly with Written Creative Production with a coefficient of 0.383 and the result is significant with only 0.04% probability that this result is due to chance. However, the addition of other variables does not produce a result. There is no combination of variables, which associate with written creative production.

The data from category two was processed using regression with the final dependent variable: oral creative production. Table 6.10 presents the results.

**Table 6.10: Regression of Pupil Attitude to Learning Languages Questionnaire, verbal ability and general ability / IQ with Oral creative production (category two data).**

PREDICTOR		n=55
Attitude to Learning Languages Questionnaire		c.0.485 p.0.000
Verbal Reasoning		c.0.542 p.0.045
General Ability/IQ (Motivation Test)		c.0.636 p.0.004

The independent variable to correlate most strongly is pupil attitude to foreign language learning, which correlates singly with oral creative production, with a coefficient of 0.485, a result, which is strongly significant at 0.0. The second

independent variable, verbal reasoning, is added and combines to increase the correlation strength to 0.542, with a significance of 0.045. The third independent variable which regression has highlighted is general ability / I.Q. This is the second component used as a measure in the School Motivation Analysis Test. By combining this with verbal reasoning and pupil attitude to foreign language learning the strength of the correlation increases to 0.636. This is a strong, positive relationship. The significance level alters to 0.004, which means there is now an even lower percentage probability that chance factors have affected the result. The results from this multiple correlation show a trend in that a particular combination of independent variables appear to inter-correlate and have a combined strengthening effect on the dependent variable.

### Summary of regression

Figure 6.2 provides a summary of results after regression. The cognitive learner characteristics are highlighted to show their presence in each of the five regressions carried out and to indicate their distribution, which could suggest a trend.

**Figure 6.2: A SUMMARY OF REGRESSION ANALYSIS**

NC LEVEL IN MFL Y8 (Category one data)	NC LEVEL IN MFL Y8 (Category two data)	NC LEVEL IN MFL Y9 (Category two data)	WRITTEN CREATIVE PRODUCTION (Category two data)	ORAL CREATIVE PRODUCTION (Category two data)
NO MULTIPLE CORRELATION	VERBAL REASONING c.0.458	PUPIL ATTITUDE c.0.575	NO MULTIPLE CORRELATION	PUPIL ATTITUDE c.0.485
	PUPIL ATTITUDE c.0.591	VERBAL REASONING c.0.626		VERBAL REASONING c.0.542
	INTEGRATION/ PERSONALITY c.0.639			GENERAL ABILITY / IQ c.0.636

Regression analysis using the technique of multiple correlations has highlighted a number of patterns. Cognitive and affective learner characteristics combine to strengthen correlations with category two data. **Pupil attitude to foreign language learning** combines with **verbal reasoning** to strengthen three correlations with the following dependent variables: National Curriculum level in Modern Foreign Languages in year eight and National Curriculum level in Modern Foreign Languages in year nine and oral creative production. **Integration**, a motivation measure further strengthened the former and **general ability/IQ** the latter. The two dependent variables which did not result in multiple correlations are National Curriculum level in Modern Foreign Language in year eight (using the category one data for the whole group) and written creative production, using the category two for the sub-group. Overall the effect of regression was more marked using sub-group data.

The results have indicated a number of single correlation relationships, of different magnitudes and directions, which range from strongly significant to less significant. The only independent variable, which did not correlate with any dependent variable either for the sub-group or the whole group is auditory short-term memory. **Pupil attitude to foreign language learning** ranks more highly than most, and **verbal reasoning** is also present in most single or multiple correlations. The motivation measures correlate independently although all five are administered within the School Motivation Test. **Integration** and **general ability / IQ** correlate more frequently, followed by frustration / conflict and autism / optimism. Personal interest was only present in two sets of results. Overall, some of the motivation measures correlate more significantly with the dependent variables.

A pattern of results has emerged which highlights particular cognitive and affective learner characteristics working independently or clustering in particular combinations and may clarify the field further and reduce the uncertainty regarding the role of certain learner characteristics in foreign language learning, which potentially could be the predictors of foreign language performance and creativity. Given that the research for this thesis did not study all the individual learner characteristics that could be associated with gifted foreign language learning one can speculate that further study using an increased number of independent variables for single correlations and after regression could increase the power of the correlation results (over 0.85) which would indicate a very close relationship. However, the results in this thesis do nevertheless indicate that there are associations between variables and those that appear to have stronger, more significant relationships with the dependent variables may be potentially more useful as predictors. This and the subsequent implications for the teaching of Modern Foreign Languages this will be discussed in subsequent chapters.

The final section of this chapter presents some of the qualitative data from the oral and written creative production tests. There were fifty-five participants speaking and writing in the target language. The taped interviews were assessed and some of the pupils' questions have been selected as a snapshot of pupil creativity.

### **Creativity with a foreign language: pupil responses**

The following extracts sample some of the pupils' responses to the creativity task and these reflect a range of abilities from the sub-group. The task encouraged pupils to be creative with the foreign language they were learning using what they know already

and in some cases obtaining additional support from dictionaries or by asking their teacher (p.160, p.207). The task could be said to enable cognitive and affective learner characteristics to be stimulated and these trigger the production of creative output. Pupils brought a series of questions to their interview and were told that the researcher would like to hear the questions aloud. In most cases the language learners relied very heavily on the written questions, using them as a prompt sheet because they could not securely recall the ten questions they designed in the target language without it. The less able read from their sheets in parrot fashion with no hint of an attempt to stage their questions in an authentic interview style to a real person. This role play setting does rely on the pupil to use some form of dramatic effect to suspend disbelief for the listener. Some of the more able pupils did not respond in this manner.

Data are presented in the original form with an English translation or paraphrase to reflect the attempts made to use fixed expressions and short phrases and a combination of vocabulary and structures from learned knowledge into simple questions with some or many errors. The pupils attempted to focus on grammatical accuracy and some give an impression of aiming to inject a sense of reality in the expression they put into their output. They are presented in Spanish, French, German and Urdu and have been grouped as a selection to show the spread of ability within the sub-group. The simplest questions were single phrase, formulaic statements, which learners could have used without actually knowing the meanings of all the words. These were used frequently as openers or ice breakers and were 'closed' questions relying on limited word or numerical responses to questions about personal details such as:

- *¿Cuántos años tienes? Quel age as tu? Wie alt bist du? How old are you?*
- *¿Que es tu nacionalidad? Ou habites tu? and Tu habites ou? Wo Wohnst du?*

Where do you come from / live?

Some pupils could attempt to use longer expressions for example:

- *A que hora te acuestas? Tu te lèves a quel heure? What time do you go to bed?*

What time do you get up in the morning?

- *Cuántos personas hay esta familia? How many people are in your family?*

and a few began to show a sense of humour by asking questions such as:

- *Tu aimes choux de bruxelles? Do you like Brussels sprouts?*
- *Est-ce-que croire a le pere Noel ? Do you believe in Father Christmas?*
- *Quel ton favori teletubbies? Who is your favourite Teletubby?*


These questions may show signs of learners trying to be original in their creative production, for although the question was not especially demanding it was trying to reflect contemporary themes and age-related concepts of what a pupil could ask a celebrity. It could be argued that the questioner was either trying to put the interviewee at ease, and humanise the setting with a harmless unthreatening question, or they did not actually take the creativity task seriously. This demonstrates a difficulty in interpreting the ability level of the language learner based on the performance task they were provided.

Longer questions constructed with a tag question (why?) or two short questions may have been an attempt to encourage a more detailed response from the interviewee to try to maintain a conversation. This is an encouraging sign because the learner may have been attempting to exercise some control over the conversation and steer it in a pre-planned direction rather than it evolve in an unstructured and potentially fragmented way. This type of response may suggest some form of decision making took place to enable the learner to present a conversation which emphasised meaning to be communicated rather than a conscious effort to demonstrate a particular linguistic form.

- *Est-ce que tu aimes la musique pop ou la musique classique? Pourquoi?* Do you like pop music or classical music? Why?
- *Hast du viel geld ? Wie Viel ?* Do you have a lot of money? How much?
- *In die 'Man in the iron mask' hast du trage die mask?* In the (film) Man in the Iron Mask did you wear the mask ?
- *Hast du ein neue Filme?* Are you in a new film?

Some questions were more unusual, longer and generally accurate although they may not have elicited detailed answers:

- *Est-ce que tu manges les fraises avec crème ni sucre?* Do you eat strawberries with cream or sugar ?
- *Kannst du Fussball mit zum linken fuss speilen?* Can you play football with your left foot?

X.  آپ نے اپنے تمام فٹ بال کے زمانے میں کتنے گول کیے؟  
*Aap ne apney tamam football ke zamanay mein kitney gole*  
 How many goals have you scored in your football career?  
*Kiye ?*

X. کیا یہ صحیح ہے کہ رitz ہوٹل نے آپ کو 30,000 کا بیلل دیا تھا؟  
 Kiya ye saheeh hai ke Ritz Hotel ney apko 30,000 ka bill  
 Is it true that you were billed 30,000 by the Ritz hotel?  
 diya tha?

The most creative questions were those that sounded authentic, were spoken in some cases or read fluently in many others by the pupils. The details were stressed in realistic way by a few of the sub-group to add authenticity and in anticipation of a lengthy, open response from the interviewee. There is an element of risk-taking in framing questions in this manner because the learner would not necessarily know the answer and in a real setting could have been presented with a complex answer which may have required them to attend to syntax and linguistic forms more closely in order to gain a gist of what the interviewee reported. The artificial setting of the task did not allow for responses to pupil questions and thus did not place these language learners outside their comfort zone, the task demanded a creative output that was ultimately provided by some language learners, who gave some degree of spontaneity to their dialogues because they were confident in using the target language within the parameters they set for themselves.

- Was war ihr Lieblingsaugenblick ins Fussball? What was your favourite moment in football?
- Wenn du gewesen nicht ein singer was machen du denken du vorgeblich? If you were not a singer what do you suppose you would do?
- Qu'est-ce que tu aimes faire pendant les vacances? What do you like to do during the holidays?
- Qu'est-ce que vous allez faire dans le future? What are you going to do in the future?



- **Hoffen sie machen in zehn jahre? What do you hope to be doing in ten years time?**
- **Was denkst du uber das was in Welpokal geschlehen ist? What do you think about what happened in the World Cup?**
- ***Tu ressemble a qui, mere ou pere?* Are you like your mother or your father?**

The qualitative data that emerged from the creativity tasks proved to be most informative in the breadth and quality of individual pupil responses and illuminates the quantitative research findings. The data collected was not highly original in many cases and suggest that most pupils kept within the confines of the topics they knew and could do. It could therefore be reasonable to suggest that the resultant data is a demonstration of some of the variables in action, including motivation and cognitive ability and an indication of the test face validity. However, the long term usefulness of the written and oral creative production tests, and the reliability and validity one can deduce from the quantity and quality of the data collected requires further consideration and will be discussed more fully in chapter seven.

The next chapter analyses the results of the single correlation and regression and the purpose of the discussion is to account for the pattern of results that has emerged.

Chapter Seven: Discussion of results

The results after single correlation and regression were presented in the previous chapter. These are summarised and highlighted in Figure 7.1. The first table highlights the single correlations and indicates the distribution of cognitive learner characteristics (highlighted in colour) after correlation with each of the dependent variables. Data are presented in columns for each of the dependent variables correlated firstly with category one data (whole group) and also with category two data (sub-group).

FIGURE 7.1: SUMMARY OF RESEARCH FINDINGS

SUMMARY OF SINGLE CORRELATIONS

NC LEVEL IN MFL Y8 CATEGORY ONE	NC LEVEL IN MFL Y8 CATEGORY TWO	NC LEVEL IN MFL Y9 CATEGORY TWO	WRITTEN CREATIVE PRODUCTION CATEGORY TWO	ORAL CREATIVE PRODUCTION CATEGORY TWO
VERBAL REASONING	VERBAL REASONING	PUPIL ATTITUDE	PUPIL ATTITUDE	PUPIL ATTITUDE
YORK TEST	YORK TEST	CONFLICT/ FRUSTRATION	INTEGRATION/ PERSONALITY	INTEGRATION/ PERSONALITY
MLAT	PUPIL ATTITUDE	INTEGRATION/ PERSONALITY	AUTISM/ OPTIMISM	CONFLICT/ FRUSTRATION
GENERAL ABILITY /IQ	MLAT	VERBAL REASONING	CONFLICT/ FRUSTRATION	AUTISM/ OPTIMISM
NON-VERBAL REASONING	GENERAL ABILITY/ IQ	AUTISM/ OPTIMISM	GENERAL ABILITY/ IQ	VERBAL REASONING
CONFLICT/ FRUSTRATION		YORK TEST		PERSONAL INTEREST
INTEGRATION/ PERSONALITY				YORK TEST

The pattern of distribution accentuates the presence of particular cognitive learner characteristics in the correlation. This is most noticeable with the category one data and this will form the opening discussion.

SUMMARY OF REGRESSION

NC LEVEL IN MFL Y8 CATEGORY ONE	NC LEVEL IN MFL Y8 CATEGORY TWO	NC LEVEL IN MFL Y9 CATEGORY TWO	WRITTEN CREATIVE PRODUCTION CATEGORY TWO	ORAL CREATIVE PRODUCTION CATEGORY TWO
NO MULTIPLE CORRELATION	VERBAL REASONING	PUPIL ATTITUDE	NO MULTIPLE CORRELATION	PUPIL ATTITUDE
	PUPIL ATTITUDE	VERBAL REASONING		GENERAL ABILITY/ IQ
	INTEGRATION/ PERSONALITY			

The second table presents the results after regression and demonstrates how the data responded to the use of this technique by the number and nature of learner characteristics reacting to regression and the dependent variables associating with them. It is noted that category one data did not produce a regression result, nor did the data using written creative production as the dependent variable. The cognitive variables are highlighted in colour to indicate their presence and distribution across the five sets of regression.

Category one data results

Cognitive ability

Five cognitive learner characteristics dominate the correlation with the performance variable National Curriculum level for Modern Foreign Languages in year eight

ranked from first to fifth position (see Table 6.1 for correlation results) using the whole group data. These include: verbal reasoning, the York and Modern Language Aptitude tests, general ability / IQ (a component measure from the motivation test) and non-verbal reasoning. Figure 7.1 has highlighted seven predictors, which produced statistically significant results. The remaining two variables include: conflict/frustration and integration/personality. Verbal reasoning correlates best and is highly significant (0.000), although the correlation coefficient was not very strong. However, I believe that this result provides some support for the predictive validity of verbal reasoning with regard to learning a foreign language because a significant relationship between verbal reasoning and performance in modern foreign languages in year eight is present. The presence of verbal reasoning in gifted foreign language learning is suggested by this association and the strength of the correlation indicates that there are other factors present which could also contribute to foreign language learning. H1: "Verbal reasoning will correlate significantly with foreign language performance" is supported.

### **Language aptitude**

It had been anticipated that the two Language Aptitude tests (York Test and Modern Language Aptitude Test) I used as measures of language aptitude would be strong predictors according to the findings outlined in the literature review (p115). The York Test tests grammatical analysis, accuracy and memory and pupils need to remain well motivated to complete the test because it involves looking back at previously completed tasks. The Modern Language Aptitude Test is designed to predict future pupil performance in understanding and speaking a foreign language and interestingly

it is recommended as useful for grouping and diagnostic purposes. Both of the tests are broad in that they test a wide range of skills and are considered, according to their designers, as valid for group prediction with coefficients of about 0.60. The results from this research indicate there is very little variation between the results of both aptitude tests after correlation (York Test  $c = 0.388$  and Modern Language Aptitude Test  $c = 0.342$ ). The predictive power is not as high as that of Verbal Reasoning, at 0.410, which is statistically the best predictor with a stronger correlation and this could be attributed to the testing conditions, the learning environment and the influence of other learner characteristics also exerting some influence on the dependent variable.

However, after correlation, the two Language Aptitude tests are highly significant indicating a low probability of the results being due to chance and this outcome therefore does support H7 that foreign language aptitude will correlate with foreign language performance. The two tests do not produce strong correlation results although the York test does outperform the Modern Language Aptitude test in each of the single correlations processed with the dependent variables.(see Figure 7.1) It ranks second highest with the dependent variable National Curriculum level for Modern Foreign Languages in year eight with the whole group and the sub-group and produces significant correlation results with the sub-group data processed with National Curriculum level for Modern Foreign Language in year nine and with oral creative production when other independent variables have been added and more than a year has elapsed since the test was administered. This result supports H10, the York test is a better test instrument to use. It is the more stable predictor of the two and consequently would be a more useful in a school setting, especially with beginners in

their first year of foreign language learning. Recommendations based on the findings from this research including the nature and timing of prediction studies can be explored in the final chapter.

### **Affective learner characteristics**

The component of the School Motivation Analysis Test which measures general ability / IQ is the first of the five components which correlate with the performance variable National Curriculum level in Modern Foreign Languages in year eight and support H10 that motivation will correlate with foreign language performance. The coefficient of 0.224 accounts for 5.01% of variance and it is still statistically significant ( $p=0.010$ ). Non-verbal reasoning does not correlate as strongly (0.209) nor do the remaining four components of the School Motivation Analysis Test, which have lower values: conflict / frustration (-0.198), integration (0.167), autism-optimism (-0.097) and personal interest (0.063). The latter two did not correlate significantly. This was an unexpected result. It is relevant to present all these results and consider them in the light of other research into motivation in particular with the use of the School Motivation Analysis Test as a test instrument in predicting foreign language acquisition. Boyle and Houndoulesi (1993) favour the multi-component (trait) approach afforded by this test, in that it combines ability, personality and motivation. The School Motivation Analysis Test was not designed solely for use in foreign language classrooms yet motivation does appear to exert some influence on performance in using a foreign language, according to these results and is judged to be a reliable and valid measure for prediction.

Where my research differs from that of Boyle and Houndoulesi is that they focused on the use of separate stens resulting from the primary trait dimensions. In contrast this research utilised the five derivative scores, which are produced as a result of further processing raw data from the test. The intention was to ascertain the amount of predictive variance power for each component.

The motivation results indicate that general ability / I.Q correlates better (0.224) than the other personality drives: conflict / frustration (0.198), integration (0.167), autism-optimism (-0.097) and personal interest (0.063). This may be attributed to the former component being more directly related to cognitive learner characteristics and this may explain why it is has produced a stronger correlation result than the other motivation components which are better described as affective learner characteristics.

Personal interest did not correlate with performance. This motivation component relates to the expression of interest in things outside the individual and their overall drive depending upon the importance they may attach to them. This personality trait is perhaps not exerting a strong influence in the early stages of language learning because cognitive ability is more crucial in the developmental stages of learning a language. Personal opinions and attitudes are being shaped and formed by experience inside the classroom and from influences in the family or the wider school community. Personal interest in the language and culture may not exert influence until later adolescence when pupils are actively encouraged to make decisions about the value they place on school subjects.

Interestingly, the presence of a cognitive learner characteristic as a component in a motivation test does suggest that to describe this learner characteristic as “affective” is perhaps not entirely accurate. The correlation result in this instance hints at this and although this perspective has not been discussed previously one can speculate that a degree of cognition is involved in behaviour. If behaviour is choice-driven, cognitive processing is involved in making the decision. On this basis the nature and combination of the other motivation components present or absent in the correlation results could be a marker of cognitive maturity.

Motivation is often quoted as difficult to measure independently of other factors (see Skehan, 1989, Cook, 1991) and is in itself an individual characteristic, which may be more prone to change depending on other external influences that can affect an individual’s mood, self-esteem and effort. The result produced when the motivation component conflict / frustration was correlated with the performance variable National Curriculum in Modern Foreign Languages in year eight was a negative correlation co-efficient and could be a reflection of the psychological or affective factors which influence future progress. The conditions a learner is faced with such as a test situation or learning a foreign language could be stressful for a learner and this situation could result in a heightened emotional response. However, it is not possible to determine the effect of the learning situation on the motivation of individual pupils to establish if the test situation is stressful. The objective of the correlation procedure is to identify significantly strong correlations for group predictions. The results overall mean that predictions for individual pupil performance in Modern Foreign Languages can not be undertaken using these predictors, because of the limitations due to sample size and validity. However, there is additional qualitative data within



this research, which can offer this additional dimension to the analysis. The attitude questionnaire used with the sub- group does explore pupils' feelings in language classrooms and an analysis of their individual responses may provide useful data for teachers about their mood according to learning environment and the demands made upon them in class such as reading aloud. (See qu.12 in the pupil questionnaire in Appendix A).This will be explored more fully in the discussion of the correlation results for the sub- group.

## **Summary**

It is apparent that the predictors which correlate more strongly with the performance variable: National Curriculum level in Modern Foreign Languages in year eight, are tests or measures of cognitive learner characteristics namely verbal reasoning, and language aptitude and general ability or intelligence (from the motivation test) all of which are measurable individual differences, nationally recognised as statistically reliable and valid.

The pupil scores in cognitive ability tests improve for individual learners over the three years of data collection and this is noted within the data set (Appendix F) and shows evidence of cognitive development in verbal reasoning. These improvements or gain scores in verbal reasoning should be viewed by teachers as data which firstly provides a performance score in a test giving an indication of a fixed learner characteristic: cognitive ability and secondly can be regarded as a highly reliable predictor of future performance. The score is associated with current cognitive performance and potential. Verbal reasoning scores and language aptitude tests give

an impression of a pupil's ability to firstly manipulate his or her first language and to use specific skills to grapple with a foreign language. Statistically, verbal reasoning and language aptitude measures are the better predictors according to my research findings using the data from category one. Using these measures at the onset of learning and using National Curriculum levels as indicators of performance could facilitate the prediction of foreign language learning performance.

### **The results from the sub-group**

Table 6.2 in chapter six presented the results after correlation using data from the category two sub-group of fifty-five pupils. This sub- group had completed two additional tests during their third year of study of their chosen foreign language. This includes the pupil questionnaire, designed to elicit responses to questions which attitude towards learning a foreign language, (Appendix A), and the Auditory Short Term Memory Test (Appendix H). Figure 7.1 presents results using the eleven predictors. Of these, four presented statistically significant results: verbal reasoning, The York language aptitude, ranked second with a slightly stronger correlation value than for that with the category one data, the Modern Language Aptitude test and non-verbal reasoning. Overall the pattern of results is reflecting the same trend as in the whole group results (see Figure 7.1). The addition of another independent variable (pupil attitude) and the slightly stronger coefficients using the sub- group data present a more statistically powerful set of results. As this predictor is ranked third, it does lead one to infer there could be some further value in using this questionnaire to establish pupils' attitudes to learning languages.

One of the research questions had been to consider how to quantify pupil attitude to foreign language learning. An objective had been to design a statistically robust, reliable test for a representative sample whose results should reflect those of the larger whole group had they all taken the same test at the same time. H15 is partially upheld because attitude is a predictor of performance having correlated significantly with National Curriculum level for Modern Foreign Languages in year eight. If there is an even stronger correlation between attitude and creativity it may have more use as a predictor of the latter. The results do lend support to the use of a pupil attitude questionnaire as a research tool in foreign language prediction studies.

The Modern Language Aptitude Test is ranked fourth and the results do not differ markedly from the whole group correlation results with a correlation of 0.319 (0.342 for the whole group) and a significance of 0.017 (0.000 for the whole group).

Non-verbal reasoning is ranked fifth in Table 6.2 (fifth in Table 6.1). The correlation is slightly stronger at 0.265 and it accounts for 7.02% of the variance, however its significance is lower at 0.051 so its predictive power is slightly reduced. The only other predictor which indicates a slight relationship at 0.256 which statistically is not significant ( $p = 0.051$ ) is the general ability / IQ component measure from the motivation test. Ranked sixth in Table 6.2, it was ranked fourth in Table 6.1.

The remaining five predictors do not correlate significantly with National Curriculum level in Modern Foreign Languages in year eight. Memory, the predictor which was measured using the Auditory Short Term Memory test was only used with the sub-group yet it had been anticipated that it would exert a much greater influence on

performance. The correlation is very low at 0.222 and does not appear to have a use as a predictor. H4: short-term memory will correlate with foreign language performance is not supported by this result. This is not unexpected. The literature review did not present a strong case for memory being a predictor of gifted foreign language performance, yet many foreign language teachers endorse the role of memory in foreign language learning and it is viewed as a real asset according to the results of the Jones (1991) teacher survey. Memory ability is regarded as a component of aptitude and the MLAT aims to measure one aspect, namely, associative memory via number learning. Learners have different strengths and some may be more memory orientated learners, whilst other learners are more analytical.

Cook (1991) has also commented on the prevalence of memory based learners amongst the young, a learner characteristic which is useful particularly when grammatical sensitivity is less developed. The results from this research appear to support the work of Skehan (1982) who discusses the fundamental role of the response to a stimulus in foreign language learning and to the skill of text analysis. He states that working memory size does not relate to foreign language learning success and he places more importance on analysis. His findings indicate that memory for text correlates much better with foreign language learning and measures how adept learners are at using prior knowledge to relate to new knowledge. The auditory short-term memory test may not be the most appropriate test instrument to use in foreign language prediction. Memory is a complex individual learner characteristic and debate continues about the characteristics of working memory and how it relates to creativity and the development of new knowledge in relation to foreign language learning.

Baddeley and Hitch (1974) developed the theory of working memory that is, that new information has to pass through temporary working memory before it reaches the permanent long term memory store. Long-term memory allows us to recollect details from knowledge accumulated over our lifetime and may depend on data or knowledge that has reached it from working memory. This depends on the way the information is presented, its speed and whether there is active revision and rehearsal of information. Knowledge is recovered via recognition (passive), recall (active or conscious) and re-integration (active and passive), that is the gradual reconstruction and recollection of past experiences from cues. Logie (1999) asserts:

*“The greater our expertise in a particular domain, the greater is our working memory capacity for information in that domain” (p.177).*

The characteristics of working memory have interested Skehan (1982), Baddeley (1988) *“the auditory loop and central executive model”* and more recently Logie (1999) who explains that working memory, although limited in capacity, comprises a group of specialized cognitive functions including the storage of visual images, the temporary retention of verbal (sound) information via the phonological loop (the temporary memory for words, linked to the speech system and consequently the speaking rate and digit span. The ability to repeat unfamiliar sounds is important for vocabulary acquisition) thirdly, the co-ordination of information (the central executive). According to Logie (p.174) working memory is linked to prior knowledge and perception and research into several characteristics can go some way towards describing some of the mental processes involved in mental discovery, the development of new knowledge although he adds *“of course this is very far from an account of creativity”* (p.176). I still consider that there is an important role for memory as a learner characteristic involved in predicting creativity and foreign

language performance and a place for conducting further research into the aspects of memory involved.

The remaining four predictors which do not exert an influence statistically are the other motivation component: conflict / frustration, which presents a weak, negative coefficient as it did with the whole group data in table 6.1. In fact, the rank order at the bottom of the table for the sub- group is the same as it was for the whole group single correlations with integration, autism-optimism and personal interest. Indeed, the rank orders of table 6.1 and 6.2 are not dissimilar, apart from the additional predictors used with the sub-group. This indicates that the sub-group results are similar to those of the whole group and can therefore be regarded as representative. This outcome is of positive benefit for the purposes of this research because it infers that the sub-group data is as reliable and valid as the whole group data purports to be.

**Category two data using additional variables**

The remaining single correlations (presented in Tables 6.3-6.5 in chapter six) reflect the results after correlation between the measures for individual learner characteristics and the dependent variables: National Curriculum level in Modern Foreign Languages in year nine and Written and Oral creative production. Firstly, the results after correlation with the performance variable National Curriculum level in Modern Foreign Languages in year nine can be compared with the performance variable National Curriculum level in Modern Foreign Languages in year eight to identify individual gain scores that is the progress made by the sub-group over one academic year (see Appendix F). This attainment data informs the research because it clearly

demonstrates the developmental nature of foreign language learning. This procedure enables foreign language teachers to identify individual overall progress in foreign language learning and in specific language learning skills such as listening and speaking, reading and writing. After correlation, five measures have produced statistically significant correlations. Figure 7.1 provides the summary details.

The best predictor is the pupil attitude to foreign language learning questionnaire, which presents quite a significant, strong correlation coefficient of 0.575 ( $p = 0.000$ ). This predictor has exerted a stronger influence than the other predictors on the National Curriculum level in Modern Foreign Languages in year nine, and this is reflected in a change in the rank order of the other predictors. This result supports H15, that is, attitude to foreign language learning will strongly correlate with foreign language performance.

Conflict / frustration, a component from the motivation test, is the next most significant correlation, with a significance of 0.004. The coefficient value is negative, a tendency noted with the previous variables, National Curriculum level in Modern Foreign Languages in year eight for both the whole group and the sub-group. In Table 6.3 conflict / frustration is ranked much higher moving up to second place and is more highly significant ( $p=0.004$ ). This change in the rank order may be reflecting a change in pupil motivation towards learning or to foreign language learning and could suggest that motivation is having more of an impact on pupil performance. Porter (1991) comments that motivation “determines whether the gift is expressed, but does not define gifted potential itself” (p.10).

Integration, another motivation measure, is ranked third and is also statistically more significant when computed with this dependent variable than it had been with National Curriculum level in Modern Foreign Languages in year eight. It is not a strong correlation ( $c=0.314$ ). The results however lend further support to H11 that motivation will correlate with foreign language performance.

Verbal reasoning, the predictor that has previously ranked first after single correlation analysis with National Curriculum level in Modern Foreign Languages in year eight, has dropped to the fourth most significant predictor. The correlation value is lower and the significance is reduced. This may be an indication that affective characteristics begin to exert more influence than cognitive learner characteristics after three years of formal foreign language instruction in school. Perhaps cognitive learner characteristics lead to success and this results in increased motivation and a positive attitude to foreign language learning. By year nine attitude and motivation have taken over.

A further motivation measure ranked fifth, namely, autism-optimism presents a weak, negative, significant relationship ( $p=0.022$ ). This predictor has not previously correlated significantly and appears to be exerting a slight influence on the performance measure, National Curriculum level in Modern Foreign Languages in year nine. Motivation measures are the more powerful predictors according to these results and this again suggests a shift in the relative importance of affective learner characteristics on pupil performance. This phenomenon may be indicative of the power of motivation in foreign language learning and the need for sustained motivation over time to enhance performance. The dominance of motivation measures



is noticeably more marked within this set of correlations and this cannot be attributed to one or two pupils but may reflect the effect of adolescent maturation. These results support H11 in that motivation does correlate significantly with foreign language performance in year nine. H13 refers to the fluctuation of motivation over time, which the research findings do support. Individual performance scores generally improve from year eight to year nine (see Appendix F), but it is not possible to identify the cause or trigger for improvement in foreign language performance and it cannot be assumed that this is directly attributed to increased individual motivation. The results do show that motivation is more significant overall after correlation with the performance variable. Teachers should observe their pupils at work on a range of language tasks and could deduce from pupils' attitudes (using the pupil questionnaire as an aid) whether the level of individual motivation has changed. With hindsight the School Motivation Analysis test was a rather unwieldy research tool. It required a great investment of time for hand scoring over one hundred and fifty test papers each comprising a set of ninety answers which were scored by pencilling in a selected lozenge on the score sheet. After scoring each individual set of results of numerical totals had to be transferred onto a scoring worksheet for additional processing. The next stage involved adding up rows across, combining row scores and deducting other scores to calculate the sten scores. Optical marking systems and computerised assessment would have been welcomed. However the data generated is proving to be extremely useful for group foreign language prediction research, which is how it was also perceived by Boyle and Houndoulesi (1993), who used the test outside of the United Kingdom.

The remaining predictors, which do not correlate significantly, include the York language aptitude test, personal interest, the Modern Language Aptitude Test and auditory short-term memory. General ability / IQ, a motivation measure, has presented a weak, negative correlation coefficient (-0.017) and appears to exert less of an influence as a predictor than it did a year earlier. Non-verbal reasoning has presented a weak negative relationship, whereas a year earlier it had correlated more strongly and positively with National Curriculum Level in Modern Foreign Languages in year eight. This data reflects the trend towards affective learner characteristics increasing in correlation strength and cognitive learner characteristics reducing in predictive power. Pupil attitude to foreign language learning and some of the motivation measures are exerting a stronger influence on the dependent variable, National Curriculum level in Modern Foreign Languages in year nine. The most consistently strong predictors of National Curriculum level in Modern Foreign Languages in year eight are cognitive learner characteristics namely: verbal reasoning and the two foreign language aptitude measures (York Test and Modern Language Aptitude Test) yet these are weaker predictors when they are correlated with pupil performance data collected a year later. General intellectual ability and verbal reasoning and language aptitude are the more constant, measurable learner characteristics that a learner has less control over. The research findings show that cognitive ability is not the only factor associated with foreign language learning. Attitude and motivation are involved at different times to a greater or a lesser extent and it can be inferred that if external factors (social, cultural and political) can exert an influence on pupil attitude, a subsequent change in attitude may partly contribute to a change in motivation. By the age of thirteen to fourteen years pupils begin to develop opinions about particular school subjects, which they may connect with

future careers or they may be encouraged to view all education as instrumental for vocational ends. By electing or rejecting they may consciously choose to adopt certain attitudes towards school subjects evidenced by fluctuations in motivation. The gifted foreign language learner makes a conscious and consistent effort and according to Naiman, Frohlich, Stern and Todesco (1978) “*seeks ways to overcome obstacles, whether linguistic, affective or environmental*” (p.39).

### **Predicting creativity**

The creativity task was indirectly monitoring pupil motivation and attitude to foreign language learning. The pupils in the sub-group were presented with a challenge to be creative with a task requiring written and oral output from them. Creativity in speaking and writing a foreign language is regarded within this research as an outcome and a further indication of pupil performance, hence two creativity measures for written creative production and oral creative production. It is an expectation that the programme of study in the National Curriculum for Modern Foreign Languages (see Appendix B) will develop pupil skills to enable them to use the foreign language creatively and imaginatively. One of the objectives, which had been expressed as a broad research issue was to consider whether creativity in foreign language performance can be quantified. The subsequent creativity task that was designed was piloted first and proved to be a statistically reliable research tool as a measure together with mark schemes for both written and oral creative production. I consider this design element was a very demanding part of my research and I have acknowledged and discussed the methodological limitations, which require further development in chapter five (p.191).

## **Written creative production**

The results show that only two predictors correlate significantly, firstly, pupil attitude to foreign language learning, the stronger predictor of the two and the motivation measure known as integration. Although the coefficients are statistically not particularly strong, with pupil attitude to foreign language learning demonstrating a moderately weak correlation result of 0.383, it is still highly significant ( $p = 0.002$ ). This means that H14 is supported because there is a significant correlation with written creative production. Integration has a weaker correlation at 0.273 and is slightly more prone to chance affecting the result ( $p = 0.023$ ) that is a 2.3% probability. H13 is not supported with this lack of statistical evidence to demonstrate a strong correlation between motivation and written creative production.

This trend continues. Autism-optimism, and conflict / frustration, two of the five motivation measures, are not statistically significant, ranked at third and fourth and yet do consistently present weak negative correlation coefficients. The Modern Language Aptitude Test (ranked fifth) has produced a still weaker correlation however it has ranked higher than the York Test for the first time which is ranked tenth and has exerted very little influence on written creative production. H9 thus is not supported. The two remaining motivation measures: namely general ability / IQ and personal interest have ranked higher than verbal reasoning and non-verbal reasoning. Verbal reasoning does not correlate with written creative production therefore H3 is not supported and auditory short term memory can only produce a very weak negative relationships with written creative production therefore failing to support H6.

Overall the results in Table 6.4 are displaying lower correlation coefficients than those in Tables 6.1-6.3 and only two predictors are producing statistically significant correlation coefficients (see Figure 7.1). The predictive power of all the eleven predictors appears much lower for written creative production. Pupil attitude to foreign language learning has now ranked first on two occasions, for written creative production and National Curriculum level in Modern Foreign Languages in year nine (see Fig.7.1) and with Modern Foreign Languages in year eight.

### **Oral creative production**

The final data results based on single correlation of the independent variables with oral creative production show six predictors, which correlate significantly with oral creative production. Pupil attitude to foreign language learning is the strongest predictor and is highly significant statistically and this adds support to H16. Integration, one of the five motivation measures also correlates very significantly, and ranks as the second most powerful predictor for oral creative production as it does for written creative production. This is a very interesting result because this measure is a personality drive, qualified as the desire to express oneself. It could be construed from this result that integration is an important personal quality directly involved in communication, and is invaluable as an inter-cultural skill, which is increasingly more useful to a foreign language learner who has studied their target language for an extensive period. It is not a skill or gift that everyone possesses or wishes for. However, the desire to communicate is a powerful personality drive and to desire to communicate in a foreign language makes it more unique and this motivation component may prove to be a useful predictor of creativity for this reason. It is noted

that conflict / frustration and autism-optimism have closely ranked themselves again into third and fourth most powerful predictors and continue to present weak, negative coefficients of  $-0.377$  and  $-0.318$  respectively. These are both statistically significant as predictors for oral creative production, which they were not for written creative production. There is some skill involved in interpreting the components of the motivation measures because the multi-component motivation test is designed to explore conscious and unconscious behaviour and each component requires consideration in relation to its application to foreign language learning. Conflict / frustration is the motivation measure that relates to the amount of inner conflict a person can endure and therefore enables them to concentrate on reaching a particular goal. Since neurotics and the chronically unemployed generally score above average on this component the inverse relationship that results in this research suggest that the sub-group were quite a healthy positive group of young people at the time who were not struggling within themselves and responded positively to the creativity task.

Autism-optimism is the component that measures an individual's tendency to distort reality described as "wishful thinking". A low overall score for an individual is an indicator of someone who does not feel they can achieve. The test authors (Cattell, Horn, Sweney and Radcliffe, 1964) refer to this as "the loser's syndrome" However, this tendency acts in the favour of the individual because it encourages him or her to realise their goals. Taking part in the creativity test required pupils to write questions supposedly to a famous person, they had to suspend disbelief and if the individual pupil wanted to reach their goal (achievement) then he or she accepted the task offered and what ever was available to achieve this. The correlation reflects the degree of conscious motivation that may be required for oral creative production. The

strength of correlation between oral creative production and three motivation measures support H12.

Verbal reasoning failed to correlate significantly with written creative production however its correlation strengthens for oral creative production, although the coefficient ( $c=0.270$ ) is weak and is ranked fifth and this result does not support. H2. This is unexpected, given the creativity task demanded an ability to manipulate prior language knowledge in an original way, demonstrating accuracy in construction and pattern. Perhaps the cognitive skill is insufficient without the interest in the task or the outcome. Other learner characteristics are required for task completion and this seems probable in this instance. The components of the motivation test measuring conflict / frustration and autism- optimism present negative correlation coefficients as they did for written creative production and this should be interpreted as further indication of the presence of unconscious and conscious motivation in foreign language creativity.

Personal interest is the fourth motivation measure to correlate significantly with a negative co-efficient and it correlates more strongly with oral creative production than any other dependent variable. This component reflects the interest a person has in things outside of them, a trait which may be useful for creative purposes or may reflect an increase in interest in the target culture or speech community. This may be a learner characteristic that is more important in an older learner. The change of direction demonstrated by the oscillation from very weak, positive insignificant correlation results in association with performance variables to negative correlation coefficients in connection with creativity could reflect a change in the relative importance of personal interest as an independent variable and its presence may be

more critical for oral than for written creative production. Logically, if a pupil has a range of interests and hobbies he or she has more personal experiences and sources of ideas to draw upon as a stimulus for creativity. In a learning context, a pupil may be aware of the level of interest in a given area and at the same time may also possess an unsatisfied need or drive that she or he is conscious of. The motivation components present clusters of information about the unconscious and conscious aspects of this learner characteristic.

The remaining five predictors present very weak, statistically insignificant correlations because they are all cognitive learner characteristics and affective learner characteristics have dominated the correlation. Neither of the two foreign language aptitude tests supports H8. The auditory short-term memory result does not support H5 which with non-verbal reasoning can only produce very weak coefficients suggesting they contribute very little to oral creative production in a foreign language.

Overall there is a greater number of predictors with stronger, more significant correlation results with oral creative production than for written creative production suggesting that perhaps more learner characteristics are present in speaking aloud a creative foreign language task than actively writing it.

### **Summary of results**

Given the number of correlations using whole group and sub-group data, which were carried out over time, it is useful to highlight the salient points:



- A small group of predictors are consistently producing significant results after single correlation. This leads one to speculate that overall some may have value, particularly verbal reasoning and attitude to foreign language learning because a significant correlation result suggests a potentially useful group predictor of Modern Foreign Language performance or creativity.
- Verbal reasoning and the York language aptitude test are the best predictors for National Curriculum level in Modern Foreign Languages in year eight.
- Pupil attitude to foreign language learning and three of the five motivation measures, namely, integration, conflict / frustration and autism-optimism are the best predictors for National Curriculum level in Modern Foreign Languages in year nine and for both written and oral creative production.
- There is a change in the type of learner characteristic presenting strong correlation results. Initially cognitive learner characteristics (verbal reasoning, foreign language aptitude and general ability / IQ) rank higher than the affective learner characteristics. This change is reflected in the correlation results from sub-group data representing pupils data at the end of their third year of foreign language study.

However it should be pointed out that the strongest predictors are not the same predictors and this varies according to the dependent variable. It is noted that the strength of the coefficients of these best predictors is not widely different.

## **Explaining the trend after correlation**

The pattern of results might be reflecting a wider picture, that is, pupil performance and creativity in Modern Foreign Languages become increasingly more influenced by choice-driven behaviour and classroom experience. According to my results, general ability and foreign language aptitude, which are fixed indicators of good foreign language learners, cease to be the stronger predictors when external factors begin to exert an influence. These impact upon motivation and pupil attitude to foreign language learning. Thus, affective learner characteristics begin to have a much greater impact on pupil performance and creativity and so increase their statistical power as predictors.

## **Regression analysis**

The data were processed to identify if there is a cluster of predictors, which combine after regression (multiple correlation) to produce a group of best predictors that might have application for teaching purposes. After regression of National Curriculum level in Modern Foreign Languages in year eight using category one data, there was no combination of learner characteristics present. The predictive power of verbal reasoning and the York language aptitude test remains stronger when they are correlated singly with National Curriculum level in Modern Foreign Languages in year eight. This partialling-out effect is rather unexpected after regression.

### **Regression using sub- group data: performance**

After regression is carried out on the data pupil attitude to foreign language learning and integration noticeably combine with verbal reasoning. The strength of the correlation increases from 0.459 to 0.591 when the predictor pupil attitude to foreign language learning is added and the addition of integration strengthens the correlation to a coefficient of 0.639. This is statistically significant strong result because there is only a 3% probability that this resulted by chance and the combination of these learner characteristics could be used as a group predictor of foreign language performance with quite a high confidence level.

The addition of pupil attitude to the correlation may account for the combination of variables to occur after regression, as the rank order of correlation strength of other variables does not exert an influence. This loss of predictive power is an unanticipated consequence and would make prediction patterns less straightforward for a novice to interpret. The results do highlight that a foreign language prediction tool kit or package for schools would require data handling skills and careful explanation. This strongly supports the view that there could be some value for foreign language teachers in using all three predictors to statistically predict future performance and inform target setting using National Curriculum levels in Modern Foreign Languages in year eight.

## **Regression using National Curriculum level in Modern Foreign Languages in year nine**

Pupil attitude to foreign language learning combines with verbal reasoning, to strengthen the existing correlation. The correlation coefficient of 0.575 is increased to 0.626. This result suggests there could be some statistical value in using pupil attitude and verbal reasoning together as predictors. However I would not recommend this because the importance of motivation both as a contributor to pupil performance and an outcome after achievement in foreign language learning “success breeds success” would be overlooked and its potential as a useful, reliable predictor undervalued if regression were the only data analysis to occur. It may be educationally sounder to use single correlations to ensure that both cognitive and affective learner characteristics are regarded as significant factors in foreign language learning or to ensure that both techniques are employed for maximum accuracy in identifying gifted foreign language learners.

### **Regression of written creative production**

After regression only pupil attitude to foreign language learning remains as a significant correlation at 0.383. However, integration ceases to exert an influence on written creative production. Predictive power in a single correlation does not automatically result in a variable combining with another predictor and strengthening the correlation. In this case it is actually worse off after regression.

## **Regression of oral creative production**

The final group of regression data produces an interesting result. Pupil attitude to foreign language learning correlates with a result of 0.485. Verbal reasoning increases the strength of the correlation to 0.542 after regression. Finally, general ability / IQ adds to the predictive power by combining to further increase the strength of the correlation to 0.636. The significance level strengthened with this addition to 0.004. It is the change in the significance level, which is the most unexpected outcome. The predictive power is increased not solely because the correlation increased but more importantly because the combination of these three predictors is statistically more significant and therefore less likely to have been caused by chance. The probability had increased to 4.5% with only two predictors and then is reduced to 0.04%. The change in the probability that is, the significance value is difficult to account for with any certainty. Clearly, it is better to use the three predictors in combination rather than just two. Anecdotally, a combination of cognitive and affective learner characteristics is more akin to a real learner. This regression result combines two cognitive learner characteristics: verbal reasoning and general ability/ IQ with an affective learner characteristic, namely, attitude to foreign language learning.

## **Summary of Regressions**

Verbal reasoning and pupil attitude to foreign language learning are the two predictors, which combine most frequently with each other. They strengthen the correlation result after regression using the data for the sub-group with the selected independent variables reflecting pupil performance: National Curriculum level in

Modern Foreign Languages in year eight, National Curriculum level in Modern Foreign Languages in year nine and oral creative production. Verbal reasoning and pupil attitude to foreign language learning substantiate their value as selected predictors because not only are they strong predictors in single correlations, they also maintain their predictive power after regression with National Curriculum level in Modern Foreign Languages in year eight, National Curriculum level in Modern Foreign Languages in year nine and oral creative production. They are thus versatile, relatively strong, and each represent cognitive and affective learner characteristics respectively and are statistically the best predictors overall.

Integration and general ability /IQ are components from the motivation measure which combine with verbal reasoning and attitude to foreign language learning. The former with National Curriculum level in Modern Foreign Languages in year eight and the latter with oral creative production.

Regression with oral creative production is more successful because the combination of predictors increases the strength and significance of the correlation. This suggests that the result is due to the influence of the independent variable, oral creative production, and that if the same measures and correlation procedures were repeated the results would be the same.

Some predictors cease to demonstrate any relationship at all with the independent variables. This is especially noticeable after regression with National Curriculum level in Modern Foreign Languages in year eight and with written creative production. The results after regression do not support any of the hypotheses that refer

to combined learner characteristics (H18-H23) For example a combination of two cognitive learner characteristics, verbal reasoning and foreign language aptitude, did not result after regression (H18). Nor did foreign language aptitude, memory and motivation associate statistically with performance (H21) or with oral and written creative production (H22 and H23). Auditory short term memory has not correlated strongly with any of the dependent variables in single correlations and did not strengthen after regression. The hypotheses that were set represent the direction that I anticipated the data would take.

The results have been examined in relation to the hypotheses, set in order to conduct my research within a positivist approach using quantitative research methodology. It is pertinent at this point to return to the original research questions, which were presented in full in Chapter 4 pp.176-7. The correlation analysis can provide a measured response to these questions, which had arisen as a result of the literature review and had consequently structured the research for this thesis. This will be presented in order to highlight the individual learner characteristics and associated measures, which could form part of a diagnostic assessment programme to identify the more able language learner and indicate individual variations in learners.

### **Research questions**

- Do measures of **verbal reasoning** (cognitive ability) predict foreign language performance?

**Yes, this measure correlates the most strongly in single correlations and after regression it combines with pupil attitude and one motivation component: Integration/ Personality.**

- Does verbal reasoning predict creative foreign language production?

**No, not with written creativity and there is only a slight statistical relationship with oral creativity.**

- Does non-verbal reasoning, predict foreign language performance?

**No, the statistical relationship is very weak.**

- Does non-verbal reasoning predict creative foreign language production?

**No, statistically there is no association.**

- How can (creativity) creative foreign language use be measured?

**Creativity was measured using a test for both written and oral creativity.**

**There are some limitations, which have been discussed (pp.300-3) with some suggestions for improving the validity and reliability issues.**

- Does memory contribute significantly to foreign language learning?
- Would a measure of memory be useful as a predictor of foreign language performance?

**No, not according to the results after correlation. This may be due to the research tool, which I selected to measure this individual learner characteristic. A measure of memory for text may prove to be more apposite for further research.**



- Do **memory** and **motivation** combine as predictors?

**No, memory did not present any significant presence in either the results after single correlation or after regression.**

- Do **language aptitude** tests predict pupil performance in modern foreign languages?

**Yes, both tests, which I selected to measure language aptitude did present results of statistical significance.**

- Do **language aptitude** tests predict creative foreign language production?

**No. The York test and the Modern Language Aptitude Test do not produce strong correlation results and could not be useful for prediction purposes.**

- Which test instrument is the better predictor (Modern Language Aptitude test or the York test)?

**The York test performs better than the Modern Language Aptitude test. The York test could be more useful than the latter in group prediction studies in schools.**

- Does **motivation** contribute towards foreign language learning?

**Yes. Motivation does exert some influence on foreign language performance after correlation. The component from the School Motivation Analysis test, which correlated more strongly, was General Ability/ I.Q.**

- Would a measure of **motivation** be a reliable predictor of creative production in foreign language use?

**Yes. The measure for motivation had five components; each related to different personality drives which combine to form this individual learner characteristic. Other components from the School Motivation Analysis test correlated more strongly with both written and oral creativity. These include: Integration/Personality; Autism/Optimism and Conflict/Frustration. These results suggest there is real value in using this measure in foreign language prediction because this test can produce a wealth of data that produces a detailed motivation profile for each learner. This is useful for the foreign language teacher who may have to contend with fluctuations in motivation during the learner's exposure to foreign languages. Knowledge of a learner's motivation could enable the teacher to implement appropriately matched classroom tasks and interventionist teaching strategies.**

- Does a positive **pupil attitude** towards learning a foreign language contribute towards performance in foreign language learning?

**Yes. Pupil attitude correlates with foreign language performance, suggesting an association. This is more marked after two years of foreign language study.**

- Does a positive **pupil attitude** towards foreign language learning contribute towards creative production in using a foreign language?

**Yes. The measure for pupil attitude correlated the most strongly with both written and oral creative production. It combined with a motivation component: General Ability/I.Q after regression, which may strengthen a case for its inclusion in a diagnostic assessment tool for use in the foreign language classroom.**

- How can **pupil attitude** be quantified to create a measure?

**Pupil attitude was quantified using the scored results from a pupil attitude questionnaire designed for use for the research for this thesis. The questionnaire could be improved with additional questions and more opportunities for pupils to respond. Teachers would be better informed of their pupils' attitude to learning foreign languages and to their own progress and performance. This qualitative data would be of benefit for future planning. The measure itself was statistically reliable and the results were useful for the purposes of this research, however there are design limitations and these would need to be rectified for future use.**

- Which individual learner characteristics consistently predict performance and creative foreign language use?

**There are four individual learner characteristics, which have correlated more consistently with performance and creativity, namely, verbal reasoning, language aptitude, motivation and pupil attitude. The significance of these**

**results will form part of the discussion in the concluding chapter, which anticipates the realistic outcomes of this research.**

- **How can creativity in foreign language use be measured?**

**For this research, creativity in foreign language use was measured using a test of written and oral creativity. Chapter 5 (pp.204-207), provides a discussion of how this test was designed and administered. Chapter 6 (pp. 263-8), presents some of the pupil responses and Chapter 7 (pp. 304-6), acknowledges some of the limitations of this measure.**

- **Are any individual learner characteristics reliable predictors of foreign language performance if combined with other learner characteristics?**

**Yes. Verbal reasoning and pupil attitude combined after two regressions with performance, and on the latter occasion a motivation component: Integration/Personality added to this result, which strengthened the correlation further.**

**The implications of these correlation and regression results will be discussed in the concluding chapter. The closing section of this chapter contemplates the methodological considerations undertaken after data analysis and reflects upon the threats to validity and reliability within correlation research.**

## **Limitations of this research**

After presenting and discussing the single correlations and stepwise regressions undertaken within this research, it is important to consider my results in the light of broader questions relating to correlation research. In particular whether the tests that have been used in the research for this thesis actually do measure what they are supposed to and if the test results are plausible. It is pertinent to consider whether the results from the sub-group can form the basis for generalizations to be made of other data.

Individual learner characteristics of interest within this research were selected after conducting a literature review and were refined into research tools or measures to describe and interpret quantitative data objectively. In most cases professionally competent 'off the shelf' tests were available. The selected learner characteristics that did require test design and development included a measure for written creative production and oral creative production and pupil attitude to foreign language learning. It is important to acknowledge that the tests which were used to measure verbal reasoning, non-verbal reasoning, foreign language aptitude, memory, motivation are robust and reliable measures and the results of home grown tests for these particular learner characteristics would probably be highly suspect. Robson (1993), points out that: unless a measure is reliable, it cannot be valid. He discusses the causes of test unreliability, such as subject error and subject bias. This means taking account of fluctuations when constructing a test and considering the effect of a pupil actually performing better in a test administered by the researcher than normally expected by their teacher. It was not possible within the time frame for this research to

ensure that fluctuations in pupil performance using any of the tests (especially those designed for the research) were anticipated and appropriate action taken to avoid those fluctuations. Nor was it possible to confidently assert that pupil performance in the written and oral creative production tests was not as a result of a special effort by the pupil. If some pupils worked better in the creativity tests, then one could speculate about the reasons. The outcome of this effort could be positive, leading to sustained effort, the implications of which are a change in individual pupil perception of his or her foreign language skill and a raising of teacher expectations of individual pupil performance and creativity.

The written creative output was judged to be representative of the pupils' level of ability and potential and was their own work, according to opinions expressed informally by the foreign language teachers who assisted with scoring the data. The manner in which pupils conducted themselves during the interview did not give me cause to suspect that large numbers of pupils had an unreasonable amount of adult help beyond what would be classed as facilitating and supportive.

However, the oral component of the test, which was assessed independently, was less successful and fit for purpose. This is a design fault, because the task did not encourage spontaneous responses to a stimulus (p.263-268). The learners planned what they wanted to say in advance and could reveal what they know in the foreign language. They managed the product by expressing what they could say. They did not receive feedback and then have to think aloud and communicate in a conversation or pause in confusion. The task therefore enabled all the language learners to pre-plan but its lack of "real world setting" did not provide the opportunity for the more gifted

linguist to reveal how strategically competent they could be. The taped recordings of pupil responses produced a range of competences in the foreign language. Few pupils elected to go beyond reading aloud what they had written. The task design did limit the quality of oral output unless the pupil was very confident or had forgotten to bring their written questions for the interview!

A second creative task for oral output, presented to the language learner at the interview may be more apposite, such as making and accounting for a decision or a problem-solving activity. Detailed cues could be provided for the speaker to enable them to demonstrate their individual ability to use more complex linguistic forms and a competence both strategically and communicatively. An opportunity to improvise would have really provided a challenge for the more able speakers and if they had been forced to sacrifice grammatical accuracy in favour of immediate communication they could have attempted to overcome the stilted un-natural pause-response in classroom dialogue where precision is preferred above social pacing. This would be more cognitively and linguistically demanding and would encourage the language learner to produce spontaneous language, which illustrated both what they know and can do and how they convey meaning when they are not leading the conversation. They could have been responsible for some part of the conversation as part of the stage managing behind the task to give a sense of structure and direction. The qualitative data produced would be entirely original and reflect oral creative output and communication strategies more vividly and more accurately. I acknowledge that there is a need for a more thorough examination of learner communication strategies and consequently a change in the test instrument designed for collecting data

regarding creativity together with a modified assessment mechanism for use within the field.

When the tests which were designed for written creative production and oral creative production and the questionnaire for pupil attitude to foreign language learning actually do measure what they set out to and produce reliable results then one has also to give careful thought to the validity of the test and the subsequent results. This relates to the previous point about pupils working better in a test. Cohen and Manion (1994) refer to threats to test validity, which could be internal or external and which might lead a researcher to make inaccurate conclusions. They list threats to internal validity: history, maturation, statistical regression, testing, instrumentation, selection and experimental mortality and also threats to external validity namely: failure to describe independent variables explicitly, lack of representativeness of available and target population, the Hawthorne effect, inadequate operationalising of dependent variables, sensitization to experimental conditions and interaction effects of extraneous factors and experimental treatments. These can now be discussed briefly within the context of this research.

### **Internal validity in relation to this research**

**History:** It is possible that other factors such as different ethnic home backgrounds could influence correlations between the independent variables: National Curriculum level in Modern Foreign Languages in year eight, National Curriculum level in Modern Foreign Languages in year nine, written and oral creative production and the dependent variables: verbal reasoning, non-verbal reasoning, motivation, foreign



language aptitude, memory and pupil attitude to foreign language learning. However, by using pupils in the same school throughout the study the effects are reduced.

**Maturation:** Individual maturation rates vary over the period of this study and this could reduce the correlation between the dependent and independent variables. By using the same pupils throughout the study the effects over time are minimised.

**Statistical regression:** If a sub- group had been non-randomly selected then later testing would produce results closer to the mean. Regression to the mean is caused by unreliable measures and testing methods. As the sub-group was selected at random using a random numbers table, the effect of regression due to unreliable methods is removed. Using multiple measures over time also removes the reducing effect that regression to the mean would have on correlations between independent and dependent variables.

**Testing:** Using test data from school scheduled tests that is the verbal and non-verbal reasoning tests and scheduling tests for different measures over three years, the practice effects were minimised.

**Instrumentation:** Using unreliable tests can produce errors as can a change in tester skill. Many of the tests used for this research are commercially available and are highly reliable. For example: the School Motivation Analysis test (Krug, Sweney and Cattell, 1970) has reliability coefficients of between 0.86 to 0.94 for the five motivation measures used in this research. The revised version of the Modern Language Aptitude test (Carroll and Sapon, 1997) has reliability coefficients ranging

from 0.55 to 0.94. The predictive validity of the York language aptitude test is 0.60. Those tests designed for the research were of comparable reliability after test-retest correlation of the pupil attitude to foreign language learning questionnaire. The consistency of this measure was assured with a validity coefficient of 0.84 and a reliability coefficient of 0.974, which indicates it is very strongly correlated. Skill level changes in the tester were kept to the minimum for the creative tests by scheduling the memory tests and also preventing pupils having an opportunity to discuss the tests with their peers, (thus removing practice effects) and by audio recording the oral tests for specialist Modern Foreign Languages teachers to assess the individual oral and written pieces in one block of time. Teacher experts who confirmed that the questions on the pupil questionnaire surveying pupil attitudes to learning foreign languages actually worked assured face and content validity.

**Selection:** Internal validity may be threatened by comparing subject groups, which are not really equivalent. A comparison between groups does not take place in this research so this threat to validity does not apply.

**Experimental mortality:** Loss of subjects may confound the variables and alter the representativeness of the group. After three years only three of the subjects were unavailable for testing out of a group of fifty five. This loss does not pose a threat to internal validity because the sub-group was randomly selected as a representative sample of the whole group and not for the purpose of comparison between groups. The research reported is therefore strong in terms of internal validity.

### **External validity in relation to this research**

This includes firstly: failure to describe independent variables explicitly. An explicit description of all the independent variables is required to enable future test replication and all relevant details have been included in this research thesis. A second consideration is lack of representativeness of available and target populations. The sub- group of fifty-five pupils is taken from the whole group of one hundred and sixty five pupils. An equal number of boys and girls took part and thirty two point three per cent of the whole group are ethnic minority (Pakistani-Asian). This is equivalent to the percentage in the whole school of thirty three per cent ethnic minority.

The Hawthorne effect appears as a threat to validity if subjects realise their role in the research and alter their behaviour as a response. This is not relevant to this study because quantitative data was collected from the whole group of pupils in the natural setting of foreign language lessons or progress testing.

A further threat to external validity is inadequate operationalising of dependent variables. The tests and measures used in this study have validity in a broader context because they are used in a normal educational setting. They are operationally valid.

Sensitisation to experiment conditions relates to threats to internal validity. There is no clouding or practice effect taking place so this does not apply. Interaction effects of extraneous factors and experimental treatments refer to any of the threats to internal and external validity, which would result in a clouding effect, resulting in confounded consequences. However, this secondary threat does not apply in this research. The previous description of threats to internal and external validity deals

with this indirectly and explains why the confounding consequences do not arise. The research reported is strong in terms of external validity.

Cohen and Manion (1994) comment that correlation techniques should not lead to assumptions being made about the variables used. The correlation techniques demonstrate 'what goes with what'. The results do not establish cause - effect relationships. This serves as a reminder that after single correlation and regression the best potential predictors are verbal reasoning and pupil attitude to foreign language learning. There is scope for additional questions to be posed about the nature of these predictors for further investigation using these predictors with other pupil groups, in other schools, or for making final GCSE predictions for the pupils within the sample sub-group using these best predictors.

The results overall endorse a value in quantifying pupil attitude to foreign language learning, and using standard ability tests for verbal reasoning, the York language aptitude test, and the School Motivation Analysis Test collectively to enhance teacher diagnosis. In practice, these measures have been successfully used as research tools and should be used as diagnostic tools to inform planning for teachers to identify gifted linguists early, using verbal reasoning and the York test. The additional value is that some measures can highlight changes in pupil orientation towards foreign language learning using the School Motivation Analysis Test and the Pupil Attitude to Foreign Language Learning Questionnaire. The creativity tests, both oral and written, have been shown to have some merits and with a thorough task review and rigorous re-piloting it may be possible to use such tests as an indicator of specific aspects of language learner creative output. With technical improvements and clarity of purpose

it may be possible for teachers to use tests with carefully constructed assessment criteria as measures for use within classroom practice for good and gifted foreign language learner prediction and monitoring. This will be considered in the next chapter, which focuses upon the research outcomes and how they relate to the aims of this research.

The discussion in chapters six and seven has focused on the results after correlation and regression analysis was carried out on quantitative data, which reflects pupil scores after testing. Measures of selected individual learner characteristics served as the research tools. The choice of techniques selected both for data collection and to process and analyse the data have been justified by the internal and external checks for validity and the reliability of the results is assured by a similar pattern emerging from the category one (whole group) and category two (sub-group) distribution of results. Chapter eight will consider the implications of these results.

## **Chapter Eight: Conclusions**

Foreign language learning reflects the contrasting assumptions embedded in the epistemological debate about the roots of knowledge bases and learning. It is perceived as a tangible knowledge system with rules and universal patterns and secondly it also holds a social, personal position based on experience and subjectivity. Learning a foreign language is both a cognitive process and an affective experience. The purpose of my research has been to explore the nature of individual learner characteristics involved in good foreign language learning and creative performance.

The empirical findings of my research recommend that the teaching of foreign languages is set within a framework of diagnostic assessment. There are implications for educational policy, since the research findings do not aim to exclude any pupils from learning modern foreign languages. Consequently access to foreign language learning is maintained for all. Social inclusion is a key theme in the post-fourteen curriculum, and a more flexible interpretation of this should be modern foreign languages for all abilities and all ages.

The National Curriculum for Modern Foreign Languages for years seven to nine comprises a programme of study designed to improve pupils' knowledge of a target language and to develop both foreign language skills and language learning skills. A skilful teacher should be delivering stimulating, challenging lessons, which provide for a range of learning styles. The Centre for Information on Language Teaching and Research and the Department for Education and Skills provide websites, which are useful sources for language teachers intending to enrich and extend materials to

develop potential and creativity. Palmer (1968) cautions that a language course cannot be designed until teachers know something about the students for whom the course is intended:

*“In order to determine the best programme for a given student we must take into consideration four subjective factors: The student; his previous study of language; his preliminary equipment; and his incentive” (p.25).*

The individual learner characteristics identified by the research for this thesis can be used as measures to firstly identify potential, using verbal reasoning and language aptitude tests scores. Pupil performance during the academic year should ideally reflect achievement and the skill development and rate of progress can be stimulated and maintained by an appropriately challenging curriculum that conveys new language and encourages reflection. The effectiveness of the programme and pupil performance is thus determined by how well a teacher knows the existing skills and abilities and attitudes of the pupils about to embark on a language learning course. The use of reliable foreign language predictors in the form of diagnostic measures provides a mechanism, which I believe can do this effectively.

### **Recommendations from this research**

Changes made institutionally and nationally may include the study of Modern Foreign Languages until the age of eighteen in some schools. I recommend that language teachers incorporate specific diagnostic tests based upon the research findings from this thesis and I propose the following guidelines to facilitate this:

- Pupils should be formally tested in verbal reasoning and language aptitude at the onset of classroom-based foreign language learning.
- Motivation can be assessed formally following one academic year of study of the target language and informal diagnosis and teacher observation can highlight pupil attitude.
- The use of the pupil questionnaire designed for this piece of research would inform curriculum planning about task and group motivation.
- Pupils with constrained short-term memories and lower cognitive scores should not be disappplied from learning foreign languages. All pupils in mainland Europe are actively encouraged to learn two languages.
- International world class tests at age fourteen should reflect the international value of foreign language learning as a cognitive discipline and a social and inter-cultural skill.
- The Academy for Gifted and Talented Youth, based at the University of Warwick should continue to expand its summer school and outreach programme to include further opportunities for gifted linguists.
- It might be possible to ensure that testing was gender-friendly using a range of techniques including the use of Information Technology. Blaire and Bourne (1994) note that the use of computers can help foreign language learners of all abilities and will provide a sense of achievement. Convery and Coyle (1999) signpost the uses that the Internet could have:

*“The Internet is an information source whose potential has yet to be fully realised in the MFL classroom. In the short- term however, it is a good source of differentiation by text” (p.25).*



They were visionary in speculating how educational ICT could enhance foreign language learning. The National Endowment for Science, Technology and the Arts recently conducted a literature review entitled “Languages, Technology and Learning” (2003) which is intended to stimulate the development of digital learning resources to support language teaching and learning and to provide a basis for informing policy on teaching and learning foreign languages with ICT. This innovation should augment existing practice in schools. Additional recommendations suggest:

- All pupils should be expected to study at least one foreign language at GCSE and all post- sixteen education courses ought to incorporate foreign language learning as a key skill.
- Higher education entry requirements could include at the very least a certificate of attainment and an achievement portfolio in foreign language study beyond key stage four (aged sixteen) to reflect the value that is placed on foreign language skills by some employers.
- Humanities subjects and expressive arts can reaffirm values of citizenship in cultural studies if foreign language learning can maintain a hold in the formal curriculum. Basnett<sup>1</sup> summarises this: “*If you never learn another language, you never know how vast the gap can be between peoples, so you never see the need to start bridging the gap*” (2002).

The programme of study for National Curriculum for Modern Foreign Languages for pupils aged eleven to fourteen years maintains credibility in its aims to challenge and maintain pupil interest in language and culture and this requires a creative, flexible

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<sup>1</sup> This opinion was expressed in the Guardian Education Supplement on 12 March 2002

approach from languages teachers. *“Creativity is like murder – both depend on motive, means and opportunity”* Johnson-Laird (1988, p. 15).

However, Tangherlini and Durden (op.cit.) comment on the paucity of provision for good linguists within good education programmes:

*“The good education tradition has contributed precious little to the practice of foreign language instruction: in fact, one of the least effective methods-foreign language “enrichment” – derives from the good tradition. Nothing is a purer waste of time than programs which encourage dabbling in a variety of foreign languages”* (p.435).

They reinforce the value in encouraging pupils to communicate with what they know to develop ‘inner speech’ which lends support to the use of the theories of Vygotsky (1978) in the foreign language classroom. Correction of errors should be minimal initially and come later with more formal instruction. They appear to discourage the introduction of more foreign languages, which seems unnecessary unless there are strategic reasons.

The Department for Education and Skills provides foreign language teachers with guidance for identifying good foreign language learners based on the Excellence in Cities (EiC) initiative. This is a series of qualitative definitions or descriptors of good linguists in a skill checklist format indicating what talents the individual pupils can be expected to display such as: possessing a feel for language, showing creativity, picking up new language quickly and excellent powers of retention from one lesson to the next. Observation and monitoring are recommended although there appears to be no specific reference made to measures of giftedness and the use of aptitude tests. The purpose of assessment is twofold, namely formative to diagnose skill and knowledge

deficits and summative to reflect progress made. However, the aptitude tests and also the creativity tests designed for this thesis, do measure: fluency, accuracy, range, flexibility and appropriacy without apparently risking the lowering of motivation.

The research for this thesis did not set out to investigate and champion particular learner strategies, nor was there an intention to devise an alternative curriculum for foreign language teaching. However, the research findings exposed some of the more influential learner characteristics present in the good foreign language learner namely, verbal reasoning, language aptitude, motivation and attitude to language learning. With this in mind, the foreign language strategy in Figure 8.1 presents a diagnostic approach that informs the teacher initially who the good language learners are, what progress they are making and provides progress indicators for the less able and average ability foreign language learner. It is presented as a curriculum planning response devised for foreign language teachers, and reflects the trend identified by the correlation analysis, that is, the fluctuations in strength in the range of selected individual learner characteristics as learners progress through their foreign language learning and can be embedded within the Key Stage Three programme for eleven to fourteen year olds. The model in Figure 8.1 has further potency because it is able to visually display the critical moments in foreign language learning in secondary education that have been introduced in the discussion in this thesis (Ch.3 pp.116-8). One asset for teachers is that it indicates how and when foreign language learner prediction should take place, and when formal assessment of foreign language performance and creativity tests should be staged. The aim is for programmed intervention including additional opportunities for good pupils to enrich their study.

The programme starts at key stage two (for pupils in year six), many of whom currently would not be learning foreign languages. Primary–secondary school liaison generally takes place prior to transfer to the secondary school. Teaching foreign languages to primary pupils in a secondary school classroom may stimulate interest and at the same time allay fears of moving from the small feeder primary school to the larger secondary school site.

Exploring the best combination of predictors is a very useful exercise for implementation in schools for long-term predictions for GCSE exams and progress towards these could be monitored. More essentially the immediate practical advantage would be for setting pupils appropriately.

At the onset of year seven the use of cognitive ability tests facilitates curriculum planning in all subjects. This highlights the range of ability in verbal reasoning, an indicator of potential, according to the results of my research and could inform pupil grouping for language learning. Figure 8.1 demonstrates how the research findings can be applied to curricular practice. The choice of foreign language could help to stimulate and maintain interest. Research by a team from Exeter University (2002)<sup>2</sup> found that boys were keener to learn German than French. They note that boys apparently prefer the guttural pronunciation of German and consider it more useful than French for industry and commerce. Tangherlini and Durden (op.cit.) note (p.435) that Latin instruction is promoted by Van Tassel-Baska (1987) because it represents “*a verbal analog of mathematics*” and that McClain and Durden (1980) found that middle school students could handle the mechanical aspects of Latin

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<sup>2</sup> From an article in the Times Educational Supplement p.13 4 October, 2002

grammar and the practical skills necessary for literary analysis applying these to stories and poems they were studying. The study of Latin helped to reinforce pupils’ understanding of the grammar and syntax of their first language.

**FIGURE 8.1 FOREIGN LANGUAGE LEARNING STRATEGY**

Year seven, eight and nine represent the first three years in secondary school.

<b>TIMELINE FOR ASSESSMENT</b>	<b>CURRICULUM PLANNING RESPONSE</b>
<b>YEAR SIX / SEVEN: BASELINE ASSESSMENT</b>	
<ul style="list-style-type: none"> <li>• GIFTED &amp; TALENTED CLASSES</li> </ul>	<ul style="list-style-type: none"> <li>• GROUPING OF PUPILS</li> </ul>
<ul style="list-style-type: none"> <li>• COGNITIVE ABILITY TESTS</li> </ul>	<ul style="list-style-type: none"> <li>• SELECTION OF MODERN FOREIGN LANGUAGES FOR STUDY</li> </ul>
<ul style="list-style-type: none"> <li>• LANGUAGE APTITUDE TEST (YORK)</li> </ul>	<ul style="list-style-type: none"> <li>• PREDICTION OF GOOD FOREIGN LANGUAGE LEARNERS</li> </ul>
<ul style="list-style-type: none"> <li>• END OF YEAR PERFORMANCE ASSESSMENT</li> </ul>	<ul style="list-style-type: none"> <li>• IDENTIFY GROUP FOR SECOND FOREIGN LANGUAGE</li> </ul>
	<ul style="list-style-type: none"> <li>• REPORT TO PARENTS</li> </ul>
	<ul style="list-style-type: none"> <li>• SCREENING DATA FOR COGNITIVE TESTS</li> <li>• SCREENING FOR SHORT TERM MEMORY CONSTRAINTS</li> </ul>
<ul style="list-style-type: none"> <li>• CULTURAL AWARENESS</li> </ul>	<ul style="list-style-type: none"> <li>• CITIZENSHIP / CROSS-CURRICULAR MODULE</li> </ul>
<b>YEAR EIGHT: CONSOLIDATING PROGRESS AND PROVIDING CHALLENGE</b>	<b>KEY STAGE THREE STRATEGY AND MODERN FOREIGN LANGUAGE CURRICULUM PLANNING</b>
<ul style="list-style-type: none"> <li>• COGNITIVE ABILITY TESTS</li> </ul>	<ul style="list-style-type: none"> <li>• PUPIL SUPPORT TO RAISE LITERACY</li> </ul>
<ul style="list-style-type: none"> <li>• MOTIVATION TESTS</li> </ul>	<ul style="list-style-type: none"> <li>• TIMETABLED SECOND MODERN FOREIGN LANGUAGE</li> </ul>
	<ul style="list-style-type: none"> <li>• ENRICHMENT CLASS IN LATIN / JAPANESE</li> </ul>
<ul style="list-style-type: none"> <li>• PUPIL ATTITUDE QUESTIONNAIRE</li> </ul>	<ul style="list-style-type: none"> <li>• WRITING TO PENPALS</li> <li>• USE OF INTERNET</li> </ul>
	<ul style="list-style-type: none"> <li>• ABLE LINGUISTS CHALLENGE DAYS</li> </ul>
	<ul style="list-style-type: none"> <li>• EDUCATIONAL VISITS TO EUROPE</li> </ul>
<b>YEAR NINE: MAINTAINING INTEREST</b>	
	<ul style="list-style-type: none"> <li>• INDUSTRY VISITS / CAREERS GUIDANCE</li> </ul>
<ul style="list-style-type: none"> <li>• WRITTEN AND ORAL CREATIVITY TESTS</li> </ul>	<ul style="list-style-type: none"> <li>• FOREIGN EXCHANGES</li> </ul>
	<ul style="list-style-type: none"> <li>• BILINGUAL IMMERSION CHALLENGES</li> </ul>
	<ul style="list-style-type: none"> <li>• ABLE LINGUIST SCHOOLWIDE NETWORK</li> </ul>
	<ul style="list-style-type: none"> <li>• CULTURAL VISITS TO ART GALLERIES / EXHIBITIONS</li> </ul>

The curriculum would need to diversify to take account of the changes in pupils' attitudes and their intrinsic motivation. The attitude questionnaire is a useful tool for prediction in order to obtain qualitative data from pupils about their perceptions of modern foreign language teaching and the value they attach to learning it. Knowing how to interview a celebrity such as Jennifer Lopez or Enrique Iglesias in the target language is probably more appealing to key stage three pupils than knowing how to ask a waiter for soup. Pupil response to the oral creativity test did reflect this within this research. Some good pupils might enjoy the chance to learn Latin or a non-European language such as Japanese. Other opportunities could include foreign language challenge days or short-stay visits to Europe. The cost of air travel no longer excludes all but the elite and the opportunity to be inter-cultural speakers in the speech community of the target language is very exciting for many pupils, particularly if a school journey is a regular part of their curriculum.

Teachers have a role to play in fostering creativity and encouraging talent to be recognised and developed through a range of innovative activities and enquiry-led approaches to learning. They are able to provide the opportunity and their enthusiasm and their own creative teaching style can continue to motivate pupils of wide ranging ability to recognise the role of modern foreign languages. Kavanagh and Upton (1994) provide examples of different activities and "*examine ways in which text can reinforce and extend what pupils are learning to say and write*" (p.1) and they recommend Jones (1992) who focuses creativity within the context of the classroom atmosphere and teacher attitude. Dornyei (2001) considers that it may be possible to enhance learner motivation through exposure to positive models who frequently exhibit positive values to language learning, through "*persuasive communication*" and

*“participation in powerful learning experiences”* (p.52). He advocates motivational strategies in the classroom to promote effort and counteract student negativity about their own aptitude or ability. He urges teachers to encourage motivational belief and confidence rather than concentrate too much on the importance of ability:

*“Point out that in average school learning there are no subject areas that cannot be mastered to a reasonable extent through the combination of effort and strategies even by low-ability students, and make it clear that you have confidence in the student’s abilities”* (p.121).

Attention can be directed to how children learn and an awareness of the benefits of raising self-esteem through positive feedback is critical particularly with pupils aged thirteen years and upwards, who may begin to lose interest and confidence.

Maintaining pupil interest in any school subject is a challenge that all secondary school teachers of eleven to eighteen year olds must tackle and more objective data which informs teachers about their pupils’ abilities and progress and can predict potential can be a real asset in the classroom in terms of lesson planning and the management of learning. Chambers (1999) reinforces this: *“teachers are aware of the inextricable link between motivation and learning”* (p.147)

Group work and role play are more challenging classroom activities to manage, yet these are the tasks some pupils enjoy according to the pupil attitude to foreign language learning questionnaire used for this thesis and to the research findings of Salter (1989), Zarate (1997), and Dornyei and Kormos (2000).

By year nine pupils would be preparing for foreign exchange visits and staying with host families. Visits to museums and art galleries, castles and countryside would enrich cultural awareness and stimulate creative cognition. With a careful balance of social and leisure activities the educational journey can stimulate even the most retail-obsessed young person to see beyond their spending power and try to communicate in a real setting. A school trip abroad is an opportunity to motivate language learners to experience and practise the foreign language in a natural setting and can expose pupils to an alternative culture. Snow and Byram (1997) support this and point out that:

*“the problem is to make the experience available to the widest number of children who will benefit and to structure it in such a way that crossing frontiers is not simply a matter of physical displacement but rather the modification and development of richer attitudes and understandings” (p.3).*

Careers guidance and at a later key stage, work experience, can reflect and thus impress upon students of the intrinsic value in developing foreign language expertise. A school-wide foreign language electronic mail day could be a more secure option for the less confident.

Educational visits and exchanges between school groups learning European languages must continue and the use of information technology can be a tool for learning and communication. Good teachers use a range of teaching styles and sharing good practice between subject disciplines provides insight into learning styles and helps teachers to convey language for learning. Finding opportunities to challenge and motivate young people to take interest in situations and settings outside their own experience lies at the heart of education. A foreign language curriculum should capitalise on the connections it has with other school subjects in order to enable



language learners to transfer the skills, knowledge and values they have learned to fit the learning environment they are in. The discussion now broadens to explore some of the methodologies, which could contribute to this.

Coyle (2000) advocates a broader approach in modern foreign language learning, and introduces a curricular model aiming to encourage the development of communication. Her reference to crossing curricular boundaries through co-operation between modern languages and other departments is of particular interest because she discusses cross-curricular links with geography and highlights the use of thinking skills and questioning. As a practising secondary school geography teacher, I provide a simple definition of “What is geography?” that makes sense to learners: geography is the study of people and places. An awareness of other languages and cultures is recommended within the programmes of study in the National Curriculum for Geography, an aim which can affirm the value of language learning to the student within both the language and geography classroom and ultimately result in a more holistic investigation of another country. Geography is a discipline that can bridge the divide resulting from a compartmentalised school curriculum. It has natural links with language, history, art, religion and science. The article and photographs by Hansen (2003) in the Royal Geographical Society journal for September demonstrate this effectively in the article entitled “The Wisdom of the Sands”, which discusses a European project to save a collection of ancient Arabic manuscripts in the Algerian Sahara.

The curriculum design principles embedded within “Thinking through Geography” (ed. Leat 1998) could help to provide a model for a thinking skills approach in

Modern Foreign Languages. This is an approach to classroom teaching and learning, which provides teachers with stimulus materials designed to focus on specific learning outcomes and thinking skills. The intention is to encourage pupils to be independent learners, to pose questions and remain motivated. The setting for learning is social in that pupils are encouraged to work collaboratively. Leat (1998) presents a curriculum for Geography which *“changes the learner, so they become effective learners and have access to a demanding curriculum”* (p.157). The principles are theoretical and could be usefully transported to the foreign language classroom. Firstly, by acknowledging that the learners already have some knowledge and this will aid further learning (constructivism). If no connection is made with existing knowledge then the new knowledge will be lost. Cognitive conflict is the midpoint when there is *“some mismatch between the incoming and the established knowledge”* (p.158). When a new concept is learned then this conflict is resolved. Leat also refers to situated cognition in a geographical context and reinforces the value of a group of learners sharing knowledge. The pupil attitude questionnaire results for this research highlighted how some pupils liked to work in groups in foreign language lessons and felt more confident when working with others. Working collaboratively on a task may motivate pupils to work more effectively within a thinking skills classroom environment.

Leat (op.cit.) comments: *“ We need to be more explicit about the values, tools and practices of geography”* (p.158) and he states that the long term aim is to support learners who can develop into geographers and not just pupils who know some geographical facts (p.158). We can apply this approach to foreign language teaching and learning. In the same manner, foreign language teachers aim to equip learners to

be good listeners, writers, readers and speakers and to be able to understand the meaning behind what is being said. Johnson (2000) explains this further:

*“knowledge of the target language needs to go beyond the understanding of words and structures in isolation. There are the “rules of use” which enable you to interpret what is actually being “said” in a message” (p.276).*

Geography is a way of looking at the world. Foreign language learning is a mechanism for having access to it. In Chapter 3 pp.121-2, Zarate (1997) frames the skills of an intercultural speaker within a geographical context when she describes the gifted intercultural speaker as one who can cross frontiers, can transit cultural property and symbolic values and establish and maintain links with native speakers. The school exchange visit will provide the chance for pupils to integrate into a culture to some degree and their motivation and attitude towards learning the language and towards the native speakers will influence this. Their Zone of Proximal Development could be extended significantly given the support offered by host families and every day situations where existing knowledge can be reinforced.

The skills that Leat et al (op.cit) embedded in the Thinking Through Geography approach are skills which the good language learner can develop. For example: reciprocity, that is, responding and building on what each other says can help learners to find out what they know through collaborative talk such as in story telling. Speculation encourages the learner to make connections and interpret knowledge through the medium of problem-solving mysteries. Giving language learners the floor in a debate could encourage pupils to take the lead so the teacher is not the main speaker in the lesson. Learners could initiate the discussion, express opinions and values and as an alternative could engage in micro-teaching (teaching a small group

of younger learners in the target language). Leat refers to this as “ bridging and transfer”(p.162).

A variety of stimuli such as photos, newspaper extracts, video clips could develop the skills of listening, visualising, remembering, speaking, working with others and writing. If, as Cummins (1981) suggests, it takes a long time to develop Cognitive Academic Language Proficiency (between five and eight years longer than ordinary communicative skills), there are implications for language learning and curriculum planning in schools. Graham (1997) says that two years is insufficient time for A level students to foster this ability if ground work has not been covered in previous years of study. Grenfell and Harris (1993,1994) conclude that simple strategy training is effective with pupils as young as eleven. They stand a better chance of being strategically competent as they grow older.

The challenge for the teacher is to plan and provide learning activities that cater for all abilities and stimulate the good language learners in a supportive environment that gives pupils the opportunity to practise their skills in speaking, reading, listening and writing. Johnson (2001) suggests a number of techniques and activities, which demonstrate the interconnections between these four skills and offers advice about keeping communication and comprehension purposeful. He concludes there is a need to teach cohesion and coherence. Byram (1987) relates how learners need to be both fluent and accurate in the foreign language, and be aware of the cultural differences, some of which are verbal and some non-verbal. There is clearly value in persuading learners to reflect upon and consolidate what they know, crystallise their thinking and be able to recall knowledge skilfully and more easily. A repertoire of skills makes

pupils more efficient learners. An holistic approach to the teaching of thinking and problem solving skills applied to the whole school curriculum would include the teaching of writing in a foreign language.

Wallace and Bentley (2002) refer to a problem-solving model for teachers to encourage thinking and problem solving in their pupils. Their action research project (Wallace and Adams,1993) culminated in TASC: Thinking Actively in a Social Context which provides a framework for developing a curriculum based upon theories about how children learn best. Their work is grounded in the theories of Vygotsky (1978) and Sternberg (1985). The former emphasises the role of the teacher or senior learner who scaffolds or supports the pupil until they demonstrate competence and independence. The zone of proximal development has significance for curriculum planners. Cognitive growth depends on the social learning environment and provides a range of potential in each learner in a foreign language classroom. The teacher can put the learner into a situation where they reach to understand. The teacher models the processes and skills making the learner engaged in their learning and directs and guides them to internalise skills and knowledge so they can assume more independent responsibility for completing the task. *“The notion here seems to be that one’s latent, or unexpressed ability could be measured by the extent to which one profits from guided instruction”* (Morris, 1998 p.2). The most effective teaching is in advance of development, but not too much. This scaffolding can support the foreign language learner.

Sternberg (op.cit.) presented the Triarchic Theory of Intellectual Development, which relates to the ability to transfer skills and strategies to new situations (see Chapter 2

pp92-4). The TASC approach has been applied to the teaching of mathematics, science, ICT and literacy and I believe there is scope for adapting their model to the teaching of foreign languages for example to develop literacy through creative writing. The goal is to develop writers who see a purpose for their writing, have a genuine need to communicate and have control over the writing process.

Crystal (1997) discusses the impact of World Standard Spoken English as a tool facilitating communication in the international business world to “*guarantee international intelligibility*” (p.138) which can supplement national dialects and “*will be in the service of the world community for ever*” (p.140). Therefore it may become increasingly more difficult to persuade the English and English speaking nations and some employers in particular to cultivate links with other countries by actively learning their languages and not being so linguistically aloof. If industry does practise what it preaches then the benefits to young people who do offer foreign language skills and knowledge of other cultures would be a more enriched quality of personal and social life and an extended vocational world.

The discussion that follows demonstrates how the research conducted for this thesis contributes to the field of good foreign language learning research.

### **Implications for good foreign language learning research**

An examination of the learner characteristics associated with good foreign language learning in the literature review revealed that verbal reasoning, language aptitude, motivation and pupil attitude to foreign language learning may be required for

optimum language learning and these reflect a range of cognitive and affective learner characteristics. An outcome of my research is a more precise profile of the individual learner characteristics present in the good language learner. This builds on the tradition led by Naiman et al (1978) and contributes to the field of foreign language learning theory because it supports the view of Skehan (1986) that foreign language learning is developmental and incremental and provides evidence of specific cognitive and affective learner characteristics. These correlate with foreign language performance and written and oral creativity and may account for individual variation in learner competence. Ellis (1984) had emphasised a need for research to go in this direction.

Confidence in these findings should lead to a more precise mechanism for identifying good foreign language learners in schools. The pattern that has emerged from this research highlights the strength of individual cognitive learner characteristics, some of which were not studied within the Good Language Learner study conducted by Naiman, Frohlich, Stern and Todesco (op.cit). Their research results recognise the influence of motivation as a learner characteristic linked with foreign language learning and the results from this research endorse this. The study undertaken by Naiman et al had not included cognitive ability and language aptitude as learner characteristics involved in foreign language learning and the inclusion of these characteristics within the research for this thesis strengthens the importance of including a broad range of individual learner characteristics to reflect not only the wide variation between individual foreign language learners but also the changing influences, when affective variables, including pupil attitude and motivation increase the predictive power (indicating their increasing dominance or role as important

learner characteristics present in the good language learner), particularly in the older learner (see Ch. 7 pp.290-291). The criticisms made of Naiman et al by Ellis (1984) regarding their questionnaire construction forced me to look very closely at methodological considerations to ensure that the questionnaire designed for pupil attitude did fit the task and was not flawed by construct design faults. The resultant good language learner profile that is produced has extended and exceeded the Good Language Learner model of Naiman et al because it incorporates cognitive and affective learner characteristics and the selected measures are generally robust and reliable. The limitations have been outlined in Chapter 7, p.304.

By using reliable measures and analysing pupil data statistically, correlation was expected to identify the learner characteristics more useful in prediction studies. The long-term objective was to establish which individual learner characteristic is part of the profile of skills or attributes present in good language learners which could be measured and ultimately used as a tool by teachers to predict future potential. The results after correlation and regression required analysis and interpretation before conclusions could be drawn about how to identify individual good language learners. Attempting to identify who are the good language learners prior to this would have been premature. This research did not set out to identify individuals from the research sample from the onset of data collection.

However, a later stage could have involved looking back at the data from the sub-group or whole group used in the research for this thesis and then using the predictors identified by this research to identify who the good language learners in the sample actually were. This would transform the research hypothesis into working practice.



For example, continued monitoring of these good language learners could have involved in depth analyses of their GCSE examination results in Modern Foreign Languages. Indeed the data from the GCSEs could have been added to the data set as a further performance indicator. A longitudinal study of foreign language learners from age eleven to sixteen is more ambitious, yet could be a more reliable means of exploring foreign language learning development and tracing performance and attitude variation within and between individuals.

The measure for verbal reasoning does correlate significantly with performance and creativity and this supports the research findings of Larsen Freeman and Long (1991), Lightbown and Spada (1993), Davis and Rimm (1998) and Porter (1999) who all link advanced cognition with advanced foreign language learning ability. After regression, verbal reasoning is clearly a more reliable predictor of future foreign language performance and creativity when it is combined with pupil attitude and motivation. If it is used as a single predictor for foreign language performance it may not be as reliable.

The results show that the York language aptitude test and the Modern Language Aptitude test are especially useful as robust predictors of performance when pupils are embarking on learning the foreign language. The decision to use language aptitude tests in this research is vindicated by recent analysis (2002) of some of the pupils' GCSE results in Modern Foreign Languages. Some of the ethnic minority pupils within the whole group of pupils were tested for cognitive ability in 1997-1998 and their scores were below average. This may have reflected their literacy levels at the time. A proportion of the group of Pakistani- Asian ethnic minority pupils with less

than average scores in the verbal reasoning tests (scores below one hundred) achieved excellent (A\*) results in 2001 in their GCSE Urdu results. I studied the data set and noted that many of these pupils had actually gained high scores in the York and Modern Language Aptitude tests which had been administered four years previously (within weeks of the cognitive ability tests). Two Pakistani Asian pupils' scores were ranked in the top ten for language aptitude in the original whole group of one hundred and sixty five pupils, although their verbal reasoning scores were below average. This could be a reflection of the widely held belief that cognitive ability tests are culturally biased and therefore the verbal reasoning tests do not favour ethnic minority pupils. This outcome is an aspect of my research which was previously unplanned. I had undertaken to analyse the GCSE results as part of my whole school responsibility and consequently have uncovered an interesting phenomenon. This discovery appears to lend further support to the use of multiple learner characteristics in prediction research, a view supported by Gardner and MacIntyre (1993), Zarate (1997) and strongly advocated by Skehan (1986) who refers to variations in learner characteristics or variable power. He suggests that pupils possess "*different configurations of abilities*" (p.8) and the raw data collected for this research does display this tendency (Appendix F).

One expected outcome, which the literature review had previously accentuated was that memory does not appear to associate with creative foreign language learning performance. My research findings are thus consistent with other research findings from the field. The good learner may demonstrate automaticity, according to Geake (2000) and good performance is not possible for all learners. The oral and written creativity tests proved very difficult for some pupils who could not construct a

question and retain it for performance without having recorded it for reading aloud and in some cases made numerous errors reading aloud with their own written prompt. These pupils may be exhibiting constrained short term memory capabilities for sounds and text and the pupil scores in the auditory short term memory test can highlight those pupils who may struggle to learn a foreign language if other good language learner characteristics are also absent.

Foreign language knowledge is an outcome of cognition and in addition there are affective learner characteristics at work. Forgetting knowledge is generally not a conscious choice. Deciding not to learn foreign language vocabulary for a test is choice driven behaviour, a consequence of motivation and attitude. However it may not always be apparent from pupil behaviour that motivation is low and attitude is negative and the relative strength of these characteristics as predictors becomes more apparent later. Advanced cognitive processing and positive motivation do contribute to performance and creativity according to my results and yet the impression teachers have is that a good memory is the most important attribute for good language learning (Jones, 1991). The literature review has exposed the complexity of memory and the functions of short and long term memory have been outlined in previous chapters. The empirical findings in this research do not fully support the use of the auditory short-term memory test as a predictor of good foreign language performance. Skehan (1989) et al believe that memory for text, that is, the ability to analyse and retrieve sounds and eventually words, are the skills that memory brings to foreign language learning and memory size does not contribute. Perleth (1993) describes this as “*cognitive efficiency*” and Cook (1998) refers to inhibited cognition as “*cognitive deficit*”. Logie (1999) et al demonstrate an ongoing interest in cognitive processing in

the scientific field. It is present as a component of language aptitude in the Modern Language Aptitude test yet its function in explaining good performance and creativity is not yet fully understood. Perhaps teacher intuition in declaring “a good memory” to be important in foreign language learning is valid, but as a definition of an individual learner characteristic it is too broad. Yet it is understandable why teachers draw this conclusion. It is a learner characteristic of particular fascination and interest for me within the field of foreign language learning research and further research into the components of memory, exploring the auditory and phonological loop theories in more depth and attempting to clarify how memory supports foreign language learning would be very appealing.

The decision to execute a longitudinal study which set out to collect quantitative data in order to examine good foreign language learner characteristics is underpinned by the theory that foreign language learning is developmental and the conditions will vary for individual pupils. The qualitative data findings from the creativity test lend support to these phenomena. The research could not address all individual learner characteristics and future studies could look at variables including age, gender and ethnicity, learner strategies, teaching style, the status of foreign languages and language learners in Europe. However, its findings are based upon data, which relate to pupil groups whose composition do not change throughout the three-year period of data collection and as a consequence remained a mixed ability population. This is a necessity in prediction studies. In my opinion, this was a weakness of the Naiman et al. study because they had collected data from older, more able pupils who had actively chosen to continue to learn the foreign language, which suggests the attitude data would be skewed. The team had also collected data from different populations

and I consider this to be a methodological weakness. However, it was possible to monitor and identify patterns from the correlation results in this research and detect a changing trend in the relative strength of the individual learner characteristics, a technique, which can only be undertaken accurately with a fixed population producing a cumulative data set. Affective learner characteristics began to correlate more strongly during the third academic year of foreign language learning, when pupils are aged between thirteen and fourteen. It is not possible to identify precisely when they exert more predictive power than the cognitive learner characteristics, however the trend is very noticeable in two directions. Firstly, pupil attitude to foreign language learning and motivation ascend in the rank order as strong predictors. Secondly verbal reasoning does not correlate significantly with written creativity and has a much weaker correlation with oral creativity. It correlates more strongly with pupil attitude to foreign language learning and with three of the motivation drives, notably the desire to express oneself.

The link between motivation and foreign language learning was explored by Gardner and Lambert (1972) who concluded that children aged ten years are more receptive to foreign languages and cultures than adolescents. Wiegand (1992) refers to the shift in pupil attitudes and motivation in adolescents and notes the “*downward curve in international and interracial goodwill*” (p. 54). Chambers (1999) provides evidence of this phenomenon in his study of language learners in Leeds schools:

*“concomitant with the youthful enthusiasm for foreign languages which eleven year olds bring is their liking of peoples of other nations, certainly the Germans and French. It is a little disturbing that the increased experience of travel and of exchange visits between the ages of eleven and thirteen, and*

*again between thirteen and fifteen seem to have a slightly negative influence on this and also the willingness to learn the languages of other countries”* (p.115).

This diminishing interest points ultimately to the critical role of motivation and pupil attitude in foreign language learning and thus their value in foreign language learning research as measures in good foreign language prediction. The CILT survey (published in Autumn 2002) was conducted in response to the government Green Paper. In all the schools they surveyed the obstacles to greater foreign language provision were considered to be: pupil attitudes, government policies and teacher supply. The Scottish Council for Research in Education report (1999) advises that pupils do not need convincing that foreign languages are important, however, they find languages “hard” in school and question the relevance of what they do there. Finding more motivating work in school may address this issue. Scheidecker and Freeman (1999) note:

*“Motivation is, without question, the most complex and challenging issue facing teachers today”*( p.116).

Pupil attitude is an additional learner characteristic of continued interest and a more extensive exploration of pupil attitudes to foreign language learning may provide insight into a learner characteristic that can sustain or inhibit foreign language capability. The value that is placed on language learning outside of the United Kingdom could be responsible for shaping more positive pupil attitudes and increasing motivation. There could be much to learn from pupil experiences, government policies and teaching methodologies outside our geographical boundaries and to acknowledge the expertise in the global foreign language learning arena. For example, the International Teacher Training and Development College in Budapest,

Hungary has ten thousand students studying the teaching and learning of foreign languages using the Internet for independent study and the support of three hundred tutors (see Appendix I). Further research into pupil motivation drives, pupil and adult learner attitudes to foreign languages and to the scale of foreign language learning in Europe could be enormously useful in planning a curriculum to match future language needs in England. Regional surveys are currently being conducted by the Languages National Training Organisation to ascertain the levels of expertise in business and local initiatives to raise aspirations seem set to become the norm.

The data emerging from this research contributes to the field of good foreign language learning research and to the language teaching profession because it can eliminate some of the uncertainties regarding prediction. Having identified who the good language learners are and taken note of the profile of individual learner characteristics they possess could add to the developing foreign language curriculum in a school. It is crucial that this recognises the importance of giving pupils time to listen, time to learn, time to communicate and time to mature as foreign language users.

### **National context: managing change**

There is great urgency required in monitoring the implementations recommended by the National Languages Strategy for England “Languages for all - languages for life” which was published in December 2002. Its long term objectives are to promote best practice and provide curriculum guidance through a series of wide ranging initiatives including: research into provision at key stage two, a key stage three Modern Foreign Languages framework, specialist language colleges, international fellowships,

partnerships with China, a National Director for Languages and adult learning plans. What it lacks is the boldness to champion foreign language learning right through the challenging years of adolescence. The controversial changes, namely a reduction of curriculum time to the key stage four curriculum may encourage a change in attitude and weaken the status of the subject in schools at a critical period. Baroness O'Neill, the chair of the Nuffield Foundation describes the proposal as "*astonishingly retrograde*" and yet the Green Paper anticipated that

*"all young people and adults will have the opportunity to learn languages and be motivated to do so" and "our national capability in languages will be transformed" (p.2).*

There is no evidence to suggest that foreign language learning will flourish. However, data do exist which indicate pupils lose interest in the subject and that Modern Foreign Languages in schools do not attract students aged sixteen and over to specialise. The findings from my research do not suggest that young people in England and Wales are less capable of foreign language learning than their European counterparts or that the characteristics of good language learners are diffuse. In contrast, the language learner characteristics identified as strong predictors take account of individual variation and the longevity of the study reveals a change in predictor from predominantly cognitive to affective learner characteristics in eleven to fourteen year old foreign language learners. The research findings from this thesis point to an increasing role played by motivation and pupil attitude in foreign language learning which suggests that a loss of motivation and a negative attitude to foreign languages is counterproductive to learning. This change in gradient conditions reinforces the fundamental importance of continuing foreign language learning in secondary schools beyond the age of fourteen. Cognitive learner characteristics



include verbal reasoning and language aptitude, which dominate the correlation results in the first instance. Pupil attitude to foreign language learning and motivation are more significant later on and this reflects the maturation of learners who can evaluate their own learning. They will assess the status and value of foreign language learning not only by school league tables and percentages of A-C grades, but by personal success enhancing their leisure time and usefulness in the workplace. A strength of this research is that it has highlighted a trend, which I believe is highly significant for policy makers and teachers in determining the success or failure of individual foreign language learning and thus strengthens support for maintaining foreign language learning throughout a child's school career. After refining the research findings of this thesis, the prediction of good foreign language learners appears to possess great potential as a dynamic solution to the dilemma facing the language teaching profession at a time when the teaching of Modern Foreign Languages is once again in a state of flux.

## **Conclusion**

The value of this research is that it acknowledges the intellectual and social challenge of foreign language learning and it provides foreign language teachers with guidelines for mapping the individual potential and progress of all language learners in the form of a foreign language strategy. This addresses the changing needs of the foreign language learner. The research findings reveal a profile of individual learner characteristics, which may compliment foreign language learning and this adds to the debate about what makes a good or a gifted language learner. Finally, attention is drawn to the teaching of cultural awareness and thinking skills in geography, practices

which may already be indirectly lending support to the teaching of foreign languages and offer a mechanism for enhancing existing good practice in the language classroom.

The Foundation Subjects strand in the Key Stage Three National Strategy focuses on the teaching of subjects including Modern Foreign Languages. The principles are: to raise pupil expectations and set targets for them, to strengthen the transition from Key Stage Two to Three by ensuring quality teaching and learning and to promote approaches for strengthening classroom practice. This generic approach is purposeful and encourages achievement. The outcome of the focus on teaching strategies could be that all pupils will be motivated and engaged in their foreign language learning.

Chambers (1999) comments:

*“Much of the onus for making learning enjoyable rests on the shoulders of the teacher. There are aspects of learning which demand endeavour, tenacity and hard graft. This can be tolerated if the subject of the learning is perceived as useful. This is not always the case for modern foreign languages” (p.203).*

We are acutely conscious of this in multilingual United Kingdom where the impact of global English may continue to demotivate language learners despite national policies and effective teaching. It may be difficult to change monolingual attitudes to foreign language learning although increased school curriculum time would help. Good foreign language learners traditionally are not as highly regarded as mathematicians and scientists. Communication is a vital skill, yet individual additional foreign language skills are not accorded the status of a precious commodity in short supply if teaching and learning time is diminished before personal and language skills can mature. Tangherlini and Durden comment (1993):

*“language is not a closed symbolic system like mathematics, it is constantly transformed by its cultural context: verbal talents recognized and celebrated in one culture may be overlooked in another” (p.428)*

Geake (2000) emphasizes: *“We learn what we care about”*. When we care more for foreign language learning, our young people will want to learn foreign languages and the developing and the good foreign language learners can thrive in the same classroom environment, which mirrors the positive attitudes towards foreign language learning in society.

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[www.deaconsschool.co.uk](http://www.deaconsschool.co.uk)

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[www.eurydice.org.uk](http://www.eurydice.org.uk)

[www.languages.routledge.com](http://www.languages.routledge.com)

[www.les.aston.ac.uk/langlife](http://www.les.aston.ac.uk/langlife)

[www.linguanet.org.uk](http://www.linguanet.org.uk)

[www.nace.co.uk](http://www.nace.co.uk)

[www.nagcbritain.org.uk](http://www.nagcbritain.org.uk)

[www.nc.uk.net](http://www.nc.uk.net)

[natlangs-forum-request@mailbase.org.uk](mailto:natlangs-forum-request@mailbase.org.uk)

[www.nestafuturelab.org](http://www.nestafuturelab.org)

[www.nuffieldfoundation.org.uk](http://www.nuffieldfoundation.org.uk)

[www.standards.dfes.gov.uk/keystage3](http://www.standards.dfes.gov.uk/keystage3)

[www.tandf.co.uk](http://www.tandf.co.uk)

[www.teachernet.gov.uk](http://www.teachernet.gov.uk)

[www.warwick.ac.uk/gifted](http://www.warwick.ac.uk/gifted)

[www.worldclassarena.org](http://www.worldclassarena.org)

# Appendices

## APPENDIX A:

Pupil questionnaire: Attitude to language learning

YEAR 9 LANGUAGES QUESTIONNAIRE  
NAME \_\_\_\_\_

DECEMBER 1998/MAY 2000  
T.G. \_\_\_\_\_

Language you are learning \_\_\_\_\_

Teacher \_\_\_\_\_

Please underline the answer that best describes you in Languages lessons:

1. Is your work in French/German/Spanish/Urdu good ? YES/NO
2. Do you like writing stories/creative writing in Language lessons ? YES/NO
3. Do you worry about your work in Languages ? YES/NO
4. Does your teacher notice when you work hard ? YES/NO
5. Can you make your work better if you try ? YES/NO
6. Are you a good reader in French/German/Spanish/Urdu ? YES/NO
7. Is your Languages teacher pleased with your work ? YES/NO
8. Do you often need help in Languages ? YES/NO
9. If someone doesn't understand you, can you explain what you want ? YES/NO
10. Do you make lots of mistakes in Languages ? YES/NO
11. Do you find learning new vocabulary hard ? YES/NO
12. When you read aloud in French/German/Spanish/Urdu do you feel shy ? YES/NO
13. Do you like asking questions in Languages ? YES/NO
14. Do you often answer questions in French/German/Spanish/Urdu ? YES/NO
15. Do other pupils like working with you ? YES/NO
16. Do your parents help you with your homework ? YES/NO
17. Do they speak other Languages ? YES/NO
18. Do you worry about forgetting words ? YES/NO
19. Do you enjoy doing group work / role play in Languages ? YES/NO
20. Do you prefer to work on your own in Languages ? YES/NO

Thank you for your help.

HDF/12/98

## APPENDIX B:

### SUMMARY OF NATIONAL CURRICULUM LEVELS FOR MODERN FOREIGN LANGUAGES

**BEST COPY  
AVAILABLE**

**TEXT  
BOUND INTO THE  
SPINE**



## Attainment target 1: listening and responding

### Level 1

Pupils show that they understand simple classroom commands, short statements and questions. They understand speech spoken clearly, face-to-face or from a good-quality recording, with no background noise or interference. They may need a lot of help, such as repetition and gesture.

### Level 2

Pupils show that they understand a range of familiar statements and questions [for example, everyday classroom language and instructions for setting tasks]. They respond to a clear model of standard language, but may need items to be repeated.

### Level 3

Pupils show that they understand short passages made up of familiar language that is spoken at near normal speed without interference. These passages include instructions, messages and dialogues. Pupils identify and note main points and personal responses [for example, likes, dislikes and feelings], but may need short sections to be repeated.

### Level 4

Pupils show that they understand longer passages, made up of familiar language in simple sentences, that are spoken at near normal speed with little interference. They identify and note main points and some details, but may need some items to be repeated.

### Level 5

Pupils show that they understand extracts of spoken language made up of familiar material from several topics, including present and past or future events. They cope with language spoken at near normal speed in everyday circumstances that has little or no interference or hesitancy. They identify and note main points and specific details, including opinions, and may need some repetition.

### Level 6

Pupils show that they understand short narratives and extracts of spoken language, which cover various past, present and future events and include familiar language in unfamiliar contexts. They cope with language spoken at normal speed and with some interference and hesitancy. They identify and note main points and specific details, including points of view, and need little repetition.

### Level 7

Pupils show that they understand a range of material that contains some complex sentences and unfamiliar language. They understand language spoken at normal speed, including brief news items and non-factual material taken from radio or television, and need little repetition.

### Level 8

Pupils show that they understand different types of spoken material from a range of sources [for example, news items, interviews, documentaries, films and plays]. When listening to familiar and less familiar material they draw inferences, recognise attitudes and emotions, and need little repetition.

### Exceptional performance

Pupils show that they understand a wide range of factual and imaginative speech, some of which expresses different points of view, issues and concerns. They summarise in detail, report, and explain extracts, orally and in writing. They develop their independent listening by selecting from and responding to recorded sources according to their interests.

## Attainment target 3: reading and responding

### Level 1

Pupils show that they understand single words presented in clear script in a familiar context. They may need visual cues.

### Level 2

Pupils show that they understand short phrases presented in a familiar context. They match sound to print by reading aloud single familiar words and phrases. They use books or glossaries to find out the meanings of new words.

### Level 3

Pupils show that they understand short texts and dialogues, made up of familiar language, printed in books or word processed. They identify and note main points and personal responses [for example, likes, dislikes and feelings]. They are beginning to read independently, selecting simple texts and using a bilingual dictionary or glossary to look up new words.

### Level 4

Pupils show that they understand short stories and factual texts, printed or clearly handwritten. They identify and note main points and some details. When reading on their own, as well as using a bilingual dictionary or glossary, they are beginning to use context to work out what unfamiliar words mean.

### Level 5

Pupils show that they understand a range of written material, including texts covering present and past or future events. They identify and note main points and specific details, including opinions. Their independent reading includes authentic materials [for example, information leaflets, newspaper extracts, letters, databases]. They are generally confident in reading aloud, and in using reference materials.

### Level 6

Pupils show that they understand a variety of texts that cover past, present and future events and include familiar language in unfamiliar contexts. They identify and note main points and specific details, including points of view. They scan written material, for stories or articles of interest, and choose books or texts to read on their own, at their own level. They are more confident in using context and their knowledge of grammar to work out the meaning of language they do not know.

### Level 7

Pupils show that they understand a range of material, imaginative and factual, that includes some complex sentences and unfamiliar language. They use new vocabulary and structures found in their reading to respond in speech or in writing. They use reference materials when these are helpful.

### Level 8

Pupils show that they understand a wide variety of types of written material. When reading for personal interest and for information, they consult a range of reference sources where appropriate. They cope readily with unfamiliar topics involving more complex language, and recognise attitudes and emotions.

### Exceptional performance

Pupils show that they understand a wide range of factual and imaginative texts, some of which express different points of view, issues and concerns, and which include official and formal material. They summarise in detail, report, and explain extracts, orally and in writing. They develop their independent reading by choosing stories, articles, books and plays according to their interests, and responding to them.

## APPENDIX C:

### Attainment target 4: writing

#### Level 1

Pupils copy single familiar words correctly. They label items and select appropriate words to complete short phrases or sentences.

#### Level 2

Pupils copy familiar short phrases correctly. They write or word process items (for example, simple signs and instructions) and set phrases used regularly in class. When they write familiar words from memory their spelling may be approximate.

#### Level 3

Pupils write two or three short sentences on familiar topics, using aids (for example, textbooks, wallcharts and their own written work). They express personal responses, (for example, likes, dislikes and feelings). They write short phrases from memory and their spelling is readily understandable.

#### Level 4

Pupils write individual paragraphs of about three or four simple sentences, drawing largely on memorised language. They are beginning to use their knowledge of grammar to adapt and substitute individual words and set phrases. They are beginning to use dictionaries or glossaries to check words they have learnt.

#### Level 5

Pupils produce short pieces of writing, in simple sentences, that seek and convey information and opinions. They refer to recent experiences or future plans, as well as to everyday activities. Although there may be some mistakes, the meaning can be understood with little or no difficulty. They use dictionaries or glossaries to check words they have learnt and to look up unknown words.

#### Level 6

Pupils write in paragraphs, using simple descriptive language, and refer to past, present and future actions and events. They apply grammar in new contexts. Although there may be a few mistakes, the meaning is usually clear.

#### Level 7

Pupils produce pieces of writing of varying lengths on real and imaginary subjects, using an appropriate register. They link sentences and paragraphs, structure ideas and adapt previously learnt language for their own purposes. They edit and redraft their work, using reference sources to improve their accuracy, precision and variety of expression. Although there may be occasional mistakes, the meaning is clear.

#### Level 8

Pupils express and justify ideas, opinions or personal points of view, and seek the views of others. They develop the content of what they have read, seen or heard. Their spelling and grammar are generally accurate, and the style is appropriate to the content. They use reference materials to extend their range of language and improve their accuracy.

#### Exceptional performance

Pupils write coherently and accurately about a wide range of factual and imaginative topics. They choose the appropriate form of writing for a particular task, and use resources to help them vary the style and scope of their writing.

## APPENDIX C:

### Creativity test: pupil task sheet

You are given the chance to interview one of the following in the foreign language you are learning at school.

Choose from : Leonardo DiCaprio, Robbie Williams, Steps, Natalie from All Saints, David Beckham.

Write down ten questions you want to ask them. Make them as unusual and as interesting as you can. You will be asked to read them aloud carefully.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Please bring your questions to the interview on Friday 11 December or Monday 14 December. Thank you for your hard work !

HDF/12/98



APPENDIX D:

MARK SCHEME FOR WRITTEN CREATIVITY

Y9 LANGUAGE ORALS DECEMBER 1998 ORAL & WRITTEN CREATIVITY TESTS	CREATIVITY WITH GRAMMAR PATTERNS
GRAMMAR	LOW
Comprehension impossible. Inaccurate phrases.	0
Errors are very frequent. Difficult to interpret. Little control of major patterns.	1
Errors are frequent. Quite difficult to interpret.	2
Some errors. Can interpret meaning. Imperfect control of patterns.	3
Some errors - which don't interfere with meaning. Imperfect control of some patterns.	4
Few errors - meaning clear. No patterns of failure.	5
No more than two errors.	6
	HIGH

## APPENDIX E:

### MARK SCHEME FOR ORAL CREATIVITY TEST



Y9 LANGUAGE ORALS.	CREATIVITY : ORACY SKILLS
PRONUNCIATION / FLUENCY	LOW
Pronunciation frequently unintelligible. Reads words without meaning.	1
Frequent errors. Requires frequent repetition. Reads words or phrases. Some simple questions.	2
Mispronunciations lead to occasional misunderstanding. Uses simple expressions and questions.	3
Occasional mispronunciations lead to occasional misunderstanding. Has combined learned vocabulary into simple questions.	4
No conspicuous errors but would not be taken for a native speaker. Questions are more creative. Good control of constructions and patterns.	5
Native pronunciation. No trace of foreign accent.	6

APPENDIX F:

RAW DATA SET FOR CATEGORY ONE

Year 9												ml														
	nv7	nv8	nv9	nv.av	v7	v8	v9	vr.av	Y	LAT	NC8	sm1	sm2	sm3	sm4	sm5	wr/c	O/C	astm	t2L?	NC9	ML2	GCSE			
Afzal	70	70	72	71	76	74	84	78			3															
Ahmed	70	70	70	70	70	70	70	70				1	1	6	1	4										
Akhtar			106	106			92	92			3												A			
Ali	93	89	95	92	85	79	81	82	21		3	6	3	6	1	5							A			
Alford	96	108	106	103	85	86	91	87	16	74	3	3	1	6	1	4	5	5	8	15	5		B			
Almond	103	105	106	105	93	97	97	96	22	44	3	1	4	8	1	1							C			
Anwar	80	70	70	73	70	70	70	70			3															
Arif	87	116	114	106	94	104	98	99	30	89	4	8	1	5	1	5	5	5	15	13	5		B			
Arif	95	97	97	96	90	85	83	86	27	71	4	8	3	5	1	5							A			
Awab	89	92	98	93	91	88	89	89	21	63	4	1	2	6	1	4	5	6	13	19	6		A			
Baggaley	112	113	116	114	98	95	96	96	29	94	4	2	3	4	1	7							C			
Baglin	94	108	105	102	100	112	113	108	22	57	5	1	4	7	1	1	4	5	13	20	6		B			
Baker	110	115	117	114	118	113	122	118	41	110	4	2	4	6	2	5	5	4	21	15	6		A			
Baldock	106	111	117	111	97	100	104	100	29	105	4	3	3	4	1	7	4	4	19	15	5		C			
Ball	126	120	130	125	126	126	130	127	39	91	5	3	6	7	5	3	5	5	12	15						
Balkin	93	97	103	98	96	92	98	95	21	81	3	1	3	8	1	2	4	3	18	16	4		C			
Bally	108	110	110	109	101	103	107	104	27	104	4	3	4	5	2	6							G			
Baz	90	93	98	94	90	101	102	98	25	64	4	3	4	6	2	4							A			
Benning	114	115	114	114	109	104	110	108	34	80	4	1	3	6	1	5							C			
Bi	70	70	73	71	70	76	78	75			2												B			
Bi	104	80	102	95	75	70	71	72			2												B			
Blair	103	105	115	108	98	91	91	93	24	90	3	1	1	5	1	6	5	5	10	17	5		C			
Bianchi		89	92	91		106	103	105		61	3												C			
Bibi	78	77	73	76	72	74	85	77			2												C			
Blackwell		95	103	99		108	105	107		74	4												C			
Blowers	109	103	105	106	97	108	105	103	26	90	3	1	4	8	1	2										
Bowles	98	76	99	91	79	84	88	84	2	62	2															
Brace	106	109	98	104	102	101	95	99	28	91	3	2	4	5	2	5	6	4	14	13	5		C			
Bruce	85	97	99	94	98	96	93	96	19	53	3	6	4	5	1	5							C			
Buckley	87	103		95	88	77		83	18	54	2	8	5	8	1	2							D			
Burbage	89	99	99	96	70	70	70	70																		
Callin	103	104	103	103	99	103	94	99	23	49	3	1	2	9	1	2	5	5	13	18	5	4	E	C		
Cameron	109	119	122	117	111	109	118	113	47	111	4												B			
Carpenter	104	103	104	104	99	102	101	101	32	93	4	1	3	5	1	5	3	4	13	15	5		C			

[illegible]



Hill	86	101	114	100	113	118	122	118	18	79	3	2	5	8	1	2										
Hillsdon	99	105	103	102	70	74	83	76																		
Hitchborn	104	94	100	99	85	86	85	85	18	33	2	6	3	5	1	5										
Hurst	122	123	130	125	120	120	125	122	34	83	4	1	5	8	1	2										B
Hurt	110	112	110	111	120	121	120	120		78	4	3	4	7	1	4										B
Hussain	71	70	86	76	74	76	77	76			4	1	2	8	1	2										B
Hussain	70	70	75	72	75	81	78	78	15	66	4	1	3	5	1	5	4	6	14	17	6					A
Hussain	77	101	99	92	78	79	81	79			4	1	2	7	1	3										B
Hussain	79	100	100	93	72	71	71	71																		
Hussain	81	92	92	88	86	94	93	91	16	81	3	7	4	3	7	5	3	3	12	15	5					A
Hyde	115	106	105	109	88	94	95	92	18	58	3	4	4	6	1	4	3	3	16	11	4					D
Imran	108	117	117	114	96	91	81	89		95	3	1	4	6	1	4										E
Iqbal	76	95	102	91	70	70	74	71			2															
Iqbal	86	89	86	87	70	74	71	72			3															C
Jabeen	109	94	103	102	97	94	97	96			4															A+
Jackson	71	72	70	71	80	84	73	79	10	51	2															
Jakeman	100	100	107	102	120	121	126	122	22	93	4	1	6	9	3	1	4	4	14	18	6					B
Khalil	93	100	96	96	88	85	85	86	4	40	3	1	3	5	1	6										D
Khan	89	90	86	88	89	87	87	88	23	78	4	5	2	5	1	5										B
Kisbee	77	94	98	90	70	71	74	72																		
Kosliwsky	85	111	105	100	100	107	104	104	19	64	3	1	3	8	1	2										E
Kurlapski	105	106	99	103	99	109	111	106		92	4	2	4	7	2	4										C
Latif	87	92	82	87	86	89	88	88	7	53	3	1	1	8	1	2	4	6	15	16						A
Latimer		109	117	113		106	103	105	26	75	3	2	4	5	2	6										C
McCann	72	82	84	79	70	70	71	70																		
Makwana	115	120	116	117	109	102	104	105	23	102	4	1	4	10	1	1	5	4	13		5					C
Manji	73	88	86	82	86	81	85	84	12	56	4	2	4	5	1	6										
Masker	108	108	111	109	88	83	91	87	35	110	2	8	4	3	4	8	2	2	14		7	3				F
Medgal	104	110	111	108	92	97	97	95	28	53	3	7	4	6	1	4	3	4	11		8	5				C
Mellio	92	105	94	97	95	94	90	93	18	81	2	1	3	7	1	4	5	5	17		12	4				E
Middleton	110	105	120	112	112	113	109	111		63	4	3	4	6	1	4										D
Middleton	119	119	118	119	109	114	114	112	36	98	4	2	4	7	1	3	3	4	25		16	5				B
Mohammed	86	96	89	90	89	79	82	83	12	82	4	2	4	5	1	5										A
Monbeer	100	95	111	102	83	80	76	80	20	71	4	8	3	5	1	5	5	4	14		17	5				B
Morgan	110	107	108	108	120	116	124	120	47	117	4	1	4	7	1	3	4	5	16		17	5				A
Moss	104	113	119	112	108	107	113	109	18	32	3	3	4	8	1	2										C

[illegible]



[illegible]

## APPENDIX G:

### Creating a data set



The raw data collected after the application of each test instrument was scored and loaded into the data set, using an Excel spreadsheet. Data were loaded in rows and columns and each row corresponded to a pupil record, that is, all the data obtained from a single participant. Pupil names were included for ease of handling the one hundred and sixty five records, which were then categorised into parent population (category one) and sample (sub-group) population (category two). The data for each test instrument were arranged in columns and test scores were loaded in using whole numbers. If pupils were absent on the day of the test there was no score obtained. The cell remained empty and the computer was programmed to deal with missing data ensuring there was no technical problem in handling a zero score, nor any effect on the results. Data were entered manually into the database (appendix F) and checked by the researcher. This was then proof read by a colleague, to ensure no errors were made. This process cancelled out any discrepancies and ensured a clean set of data for analysis. Prior to this taking place a mean score for each individual pupil for verbal and non-verbal reasoning was calculated to facilitate data handling.

## **APPENDIX H:**

### **WISC Auditory short term memory test**

## 11. Symbol Search

Discontinue after 120 seconds.



	6-7	8-16
	Part A	Part B
Time limit	120"	120"
Comple. time		
Number correct		
Number incorrect		
Total subtest score	Max. = 45	Max. = 45

(Total score = number correct minus number incorrect)

## 12. Digit Span

For both Digits Forward and Digits Backward, administer both trials of each item even if Trial 1 is passed.

Discontinue after failure of both trials of any item.

Administer Digits Backward even if Digits Forward score is 0.

Digits Forward		Trial score	Trial 2/Response	Trial score	Item score 0,1 or 2
Trial 1/Response					
1	2-9		4-6		
2	3-8-6		6-1-2		
3	3-4-1-7		6-1-5-8		
4	8-4-2-3-9		5-2-1-8-6		
5	3-8-9-1-7-4		7-9-6-4-8-3		
6	5-1-7-4-2-3-8		9-8-5-2-1-6-3		
7	1-6-4-5-9-7-6-3		2-9-7-6-3-1-5-4		
8	5-3-8-7-1-2-4-6-9		4-2-6-9-1-7-8-3-5		
Digits Forward score (maximum = 16)				<input type="text"/>	

Digits Backward		Trial score	Trial 2/Response	Trial score	Item score 0,1 or 2
Trial 1/Response					
Sample 8-2			Sample 5-6		
1	2-5		6-3		
2	5-7-4		2-5-9		
3	7-2-9-6		8-4-9-3		
4	4-1-3-5-7		9-7-8-5-2		
5	1-6-5-2-9-8		3-6-7-1-9-4		
6	8-5-9-2-3-4-2		4-5-7-9-2-8-1		
7	6-9-1-6-3-2-5-8		3-1-7-9-5-4-8-2		
Digits Backward score (maximum = 14)				<input type="text"/>	
Total subtest score (maximum = 30)				<input type="text"/>	

## 13. Mazes

Discontinue after 2 consecutive failures.

For ages 8-16, normal sequence of Mazes 1-3 after partial credit on Maze 4; normal sequence of Sample and Mazes 1-3 after failure on Maze 4.

Maze	Time limit	Comple. time	Number of errors	Score	Score
				Circle the appropriate score for each maze	
6-7 Sample					
1	30"			2+ errors 0 1 error 1 0 errors 2	
2	30"			2+ errors 0 1 error 1 0 errors 2	
3	30"			2+ errors 0 1 error 1 0 errors 2	
8-16 4	30"			2+ errors 0 1 error 1 0 errors 2	
5	45"			2+ errors 0 1 error 1 0 errors 2	
6	60"			2+ errors 0 1 error 1 0 errors 2	
7	120"			3+ errors 0 2 errors 1 1 error 2 0 errors 3	
8	120"			4+ errors 0 3 errors 1 2 errors 2 1 error 3 0 errors 4	
9	150"			4+ errors 0 3 errors 1 2 errors 2 1 error 3 0 errors 4	
10	150"			5+ errors 0 4 error 1 3 errors 2 2 errors 3 1 error 4 0 errors 5	

Mazes cautions checklist (see WISC-III<sup>UK</sup> Manual p. 212)

The following cautions should be given, if necessary, but each caution may be given only once during the test.

- "You're not allowed to go through a wall."
- "Don't stop. Keep going until you find your way out."
- "You're not allowed to start again. Keep going from here (point to the last place reached) and try to find the right way out."
- "You should start here" (point to the centre box).
- "You must get right out"

Total subtest score (maximum = 28)

## APPENDIX I:

Correspondence with IPAT, CILT, National  
Languages forum

The Psychological Corporation Limited  
A DIVISION OF HARCOURT BRACE & COMPANY LIMITED

19 November 1996

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Registered No. 493356 England

Dear Hilary

Re: MLAT-R

Many thanks for agreeing to supply data for the MLAT-R standardisation project. As discussed, I enclose the following materials for your use:-

- 1 x administration instructions
- 1 x cassette tape
- 2 x materials request form
- 30 x test booklets
- 200 x answer and practice sheets
- 200 x language achievement forms

I hope you find the above in order and look forward to receiving completed answer sheets and language achievement forms in due course.

In the meantime, if you require any further assistance, please give me a call.

Yours sincerely,



Simon Draycott

Dear Jane,

I hope the following instructions make sense ! I've worded them so I understand them myself later !

Kind regards  
Hilary Faulkner 10/10/99

### DATA FOR STATISTICAL TESTS OCTOBER 1999

The data in columns C-M, O-S, V & W are ***predictors*** or ***independent variables*** ( factors which may singly or in some combination suggest a relationship) ie. One factor or more may affect/influence an individual's propensity to learning and using a foreign language creatively.

Data in columns N,T,U,X are ***predicted*** ( ie. the ***dependent variables*** which are performance and creativity test results. )

NB.If it makes it easier to handle, please re-arrange the columns so they are grouped together better. The data was loaded on to Excel as tests etc. were marked. Any columns not mentioned are not to be included.

### SINGLE CORRELATIONS

1).Using Categories 1 & 2 data ( ie. Whole group )

Columns C,D,E,I,J,K,L,M,O,P,Q,R each with Column N.

2). Using category 2 data only ( ie. Sub-group)

Columns C,D,E,I,J,K,L,M,O,P,Q,R,V,W each with Columns N, then T, then U, then X.

### MULTIPLE CORRELATIONS ( IE. IN COMBINATIONS OF 2,3,4 ETC. TO 12.

1) Using category 1 & 2 :

Columns C,D,E,I,J,K,L,M,O,P,Q,R, with Column N

2) Using category 2 data only :

Columns C,D,E,I,J,K,L,M,O,P,Q,R,V,W with Columns N then T, then U, then X.

Then the sub-group ie.Category 2 needs to be compared with the whole group to find out if the sub-group is representative of the whole group from which it was taken. Data in columns : E,K,L,M,N,O,P,Q,R.

## Hilary Faulkner

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**From:** Wanda K Speer <WKS@IPAT.COM>  
**To:** Hilary Faulkner <hilaryfaulkner@cwcom.net>  
**Sent:** 13 July 2000 15:20  
**Subject:** Re: SMAT HANDBOOK

Dear Ms. Faulkner:

I'm forwarding your message to Dr. Mary Kelly in our Research & Development Dept. so that she might answer your specific questions about scoring SMAT.

With regard to its use in the UK and the US, we do not know how widely it is used in the UK. It is an older instrument and because of the age of the norms, it is not listed in our current catalog and we do not encourage new users. However, we still keep it in stock for the convenience of our current users. Our Distributor in England-ASE-NFER/Nelson-does not stock the test and usually refers questions about it to us, the publishers. There is only one Handbook; and neither the test nor the Manual has been updated. If you have any questions, please contact us.

Sincerely,

Wanda Speer

Customer Service

### -----Original Message-----

**From:** Hilary Faulkner <hilaryfaulkner@cwcom.net>  
**To:** [custservice@ipat.com](mailto:custservice@ipat.com) <[custservice@ipat.com](mailto:custservice@ipat.com)>  
**Date:** Thursday, July 13, 2000 2:16 AM  
**Subject:** SMAT HANDBOOK

Dear Sir/Madam,

I'm a Ph.D student ( part time ) at Nottingham University, England and full time teacher in Peterborough, Cambridgeshire, England. I'm researching creativity and giftedness in Modern Foreign Language learning and and used SMAT as a measure for motivation. I refer to the handbook to the test which I purchased from you about 3 years ago ! When attempting to analyse the pupil's individual scores for Autism- Optism in relation to their ability/creativity I note that it is not clear from your handbook how to interpret the Autism- Optism score. Should " Autism - optism" be viewed as a single element scoring from 1-10 or on a sliding scale Autism at the lower end and Optism at the upper-end thus the higher the score the more willing a pupil is to accept what is offered/ available /not distort reality ?

Is the SMAT used widely in the US and the UK ? It is not straightforward to interpret from the handbook I have. Has there been a more recent reprint or idiots guide for the non- specialist ?!

I look forward to receiving your reply and hope you can offer some guidance or assist by putting me in touch with someone who can help.

Regards

Hilary Faulkner ( Ms)

## Hilary Faulkner

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From: Jane Restorick <Jane.Restorick@nottingham.ac.uk>  
To: <hilaryfaulkner@cwcom.net>  
Sent: 14 July 2000 09:08  
Subject: Re: test/retest data.

Hilary,

I have printed some SPSS output, do you want me to send them as an attachment to an e-mail or by post. They may need explaining. I have done crosstabs on pairs of questions and done a phi correlation on individual questions as well as an overall correlation of all the paired questions with a t-test. The overall correlation is about 0.95 which is very satisfactory and the paired sample t-test is not significantly different which is what you want. The individual question on the phi seem to be mostly OK. The highest phi correlation is about 0.77 and the lowest is 0.50 about which is not too bad.

Jane

Jane Restorick  
Room A33, Resources Centre  
School of Education  
University of Nottingham  
Jubilee Campus  
Wollaton Road  
Nottingham  
NG8 1BB

Tel. +44 (0) 115 9514541

<http://www.nottingham.ac.uk/education/>

>>> "Hilary Faulkner" <hilaryfaulkner@cwcom.net> 07/12/00 10:45pm >>>

Dear Jane,

I've arranged the data as follows on sheet 2 :

Pupil nos 1- 65 rows

Test scores ( either 0 or 1 ) for questions 1-20 ie. 1T/1R/2T/2R etc. in columns

I am interested in the variation in the pupils individual scores and whether the variations overall are significant. I'm not sure whether it's a correlation test or a t-test or an analysis of variance. I need to know ultimately whether the test is reliable and which questions are less reliable because there is more variation in the test/retest scores.

Thanks in anticipation

Regards

Hilary.x



**Hilary Faulkner**

---

From: Mary Kelly <mlk@ipat.com>  
To: <hilaryfaulkner@cwcom.net>  
Cc: Wanda <WKS@ipat.com>  
Sent: 18 July 2000 20:16  
Subject: Your question

Dear Ms. Faulkner:

You are right -- the interpretation of the Autism-Optimism scale is not very clear in the manual. You should interpret it as one scale with Autism at the lower end and Optimism at the higher end. There is a passage in the adult version of the MAT that I have copied below for you. I hope this is helpful.

"Autism is a measure of wishful thinking applied to one's cognitions. Thus optimism becomes a rather good synonym. Surprisingly, this generalized autism seems to operate in quite a different direction than the autism associated with schizophrenic withdrawal. In a study by the author and May (1962), it was found that as schizophrenic patients got well, their autism scores on the MAT increased, indicating a general increase in feelings of well-being and a "rosier" outlook on life in general. Autism as phantasy withdrawal is evidently very different from autism as a bending of perception in the direction consistent with desired satisfactions.

A depressed overall score on autism is one of the predominate indicators on the MAT of the "loser's syndrome". Nearly every group that is having difficulties can be seen to have a lower than average score on this operational measure of optimism."

The above direct quote came from pages 21-22 of the following book:

Cattell, R. B., Horn, J. L., Sweney, A. B., & Radcliffe, J. A. (1964).  
Handbook and individual assessment manual for the Motivation Analysis Test (MAT). Champaign, IL: Institute for Personality and Ability Testing.

Good luck with your research.

Sincerely,

Mary L. Kelly, Ph.D.  
Manager of Research and Development

## Hilary Faulkner

---

**From:** Mary Kelly <mlk@ipat.com>  
**To:** Hilary Faulkner <hilaryfaulkner@cwcom.net>  
**Cc:** Wanda <WKS@ipat.com>  
**Sent:** 21 July 2000 20:16  
**Subject:** Re: Autism-Optimism

If you mean the Total Conflict score, the MAT manual states:

This is a measure of the total frustration which a person seems to endure. This is inner conflict, and therefore may not be manifesting his overt behavior. From a Freudian point of view it would reflect the amount of energy invested in internal strife and would therefore be inversely related to the amount of energy available for investment in active goal-directed behavior. Thus, it is not too surprising that groups such as neurotics and the chronically unemployed are significantly above average on this dimension.

In the SMAT manual on page 8, it is defined as "summary of examinee's general frustration level"

A MAT manual might be helpful to you if you have further questions about score interpretation.

Good luck in your research.

Mary

----- Original Message -----

**From:** Hilary Faulkner  
**To:** [mlk@ipat.com](mailto:mlk@ipat.com)  
**Sent:** Thursday, July 20, 2000 1:47 AM  
**Subject:** Autism-Optimism

Dear Mary,

Thanks for your help with the Autism-Optimism scale. Very useful ! I neglected to ask about the Conflict-Frustration Scale. Could you advise re. the scoring of this ?  
 Do schools use the MAT in the US ?

Look forward to hearing from you.  
 Regards

Hilary Faulkner

**Hilary Faulkner**

---

**From:** Sheena Sturrock <sheenasturrock@hotmail.com>  
**To:** <hilaryfaulkner@cwcom.net>  
**Cc:** <sms29@cam.ac.uk>  
**Sent:** 16 January 2001 20:46  
**Subject:** CILT 1998 survey/Barking and Dagenham LEA

Dear Hilary

Sorry for the delay in replying. Our University system is down just now, so I'm replying on hotmail.

We have a copy of this survey in Homerton, which you could consult if you came here - up to 8pm Mon. - Thurs., Fri till 6pm, Sat. 9.30-12.30 or Sun. 2.30 - 5.30. Or if you are in Nottingham, you would find this in the School of Education. Its full reference is:

LEE, Jeff, BUCKLAND, David, SHAW, Glenis

The Invisible Child: the responses and attitudes to the learning of modern foreign languages shown by year 9 pupils of average ability: a report of a joint research project carried out by CILT and Barking and Dagenham LEA. Standard number 1874016968. London CILT 1998.

Best wishes Sheena Sturrock, Library and Comenius Centre  
Phone and fax 01223 507257

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Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.

Hilary Faulkner

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From: S.M. Sturrock <sms29@hermes.cam.ac.uk>  
To: Hilary Faulkner <hilaryfaulkner@cwcom.net>  
Sent: 26 February 2001 13:08  
Subject: Re: language skills/ pupil attitudes

Dear Hilary

Suggest you e-mail directly APU library. Will get address for you asap.

Sheena Sturrock

Sheena Sturrock,  
Library and,  
Homerton Comenius Centre,  
Homerton College  
Cambridge CB2 2PH UK

Tel. and Fax +44 (0)1223 507257

Hilary Faulkner

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From: S.M. Sturrock <sms29@hermes.cam.ac.uk>  
 To: Hilary Faulkner <hilaryfaulkner@cwcom.net>  
 Sent: 26 February 2001 16:38  
 Subject: Re: language skills/ pupil attitudes

Dear Hilary

Thank you for your mail.

1. APU possible surveys - I have telephoned APU on 01223 363271 Ext.2302

I got the general help desk, who will enquire further on my behalf.

They will ring back here regarding surveys and annual reports - will let you know.

2. CILT published in 1997 a booklet called "Trade Talks"

ISBN 1-874016 - 79-8

by Stephen L. Webber

In the introduction it states:

"the focus of this book is on the language needs of commerce and industry in the UK" If this were of interest to you, we could possibly send our copy to you on loan, although we do not normally loan material from the Centre.

Reply now come from APU. Foreign language centre don't know of any research done by them in this area. Administrator's name is Diane Hayler, no .363271, ext.2150.

Annual report for APU just out. Get from their marketing dept. Tel. 363271, ext. 4715.

Sheena Sturrock

Sheena Sturrock,  
 Library and,  
 Homerton Comenius Centre,  
 Homerton College  
 Cambridge CB2 2PH UK

Tel. and Fax +44 (0)1223 507257

On Sat, 24 Feb 2001, Hilary Faulkner wrote:

> Dear Sheena,

>

> Can you help? I corresponded with you in January re. the CILT/Barking report.

> Could you tell me if APU survey pupil attitudes to foreign language learning? Do they still carry out annual reports?

> Also, do you know of any reports/views re.the importance of language learning and language skills from industry/commerce/professions.I have found some quoted by Hawkins (1981) from a broadsheet published by ML Dept at Eton College. I have ordered a copy of the Nuffield Language Inquiry, which may have some quotes. I have had no luck trying to get views from European businesses as yet.

**Hilary Faulkner**

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From: Michael Hammond <Michael.Hammond@cilt.org.uk>  
To: 'Hilary Faulkner' <hilaryfaulkner@cwcom.net>  
Sent: 27 September 2001 15:16  
Subject: RE: language learning in Europe (EU)

Dear Ms Faulkner

Statistics of education in Europe are published every two years in 'Key data on education in Europe', published by the European Commission. The most recent edition (1999/20000) is available in the library here, but should also be available in any academic library with information on Europe and education. You will also find information on the Eurydice web site at [www.eurydice.org](http://www.eurydice.org) <<http://www.eurydice.org>> .

Yours sincerely  
Michael Hammond

Michael Hammond  
Assistant Librarian, CILT  
20, Bedfordbury  
London, WC2N 4LB

E-mail: [michael.hammond@cilt.org.uk](mailto:michael.hammond@cilt.org.uk) <<mailto:michael.hammond@cilt.org.uk>>

For further information about CILT services go to [www.cilt.org.uk](http://www.cilt.org.uk)  
<<http://www.cilt.org.uk>>

-----Original Message-----

From: Hilary Faulkner [[SMTP:hilaryfaulkner@cwcom.net](mailto:SMTP:hilaryfaulkner@cwcom.net)]  
Sent: Wednesday, September 19, 2001 12:02 PM  
To: [library@cilt.org.uk](mailto:library@cilt.org.uk)  
Subject: language learning in Europe (EU)

Dear Sir/Madam,  
I am a part time Ph.D student (Nottingham University) researching giftedness and foreign language learning. I am in the closing stages of writing up and would like some statistics on the % of post-16 students who study one or two foreign languages in UK and in EU member countries. I wondered if you might be able to provide this information or put me in touch with any organisation that has this data.

Regards  
Hilary Faulkner  
[hdf@deacons.cambs.sch.uk](mailto:hdf@deacons.cambs.sch.uk) <<mailto:hdf@deacons.cambs.sch.uk>>  
[hilaryfaulkner@cwcom.net](mailto:hilaryfaulkner@cwcom.net)

**Hilary Faulkner**

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From: Catherine Seewald <catherine.seewald@ecml.at>  
To: <hilaryfaulkner@cwcom.net>  
Sent: 05 October 2001 15:33  
Subject: language learning in Europe

Dear Ms Faulkner,

Referring to your e-mail of 17 September, please find below some interesting links related to your work:

<http://europa.eu.int/comm/education/languages.html>

link full report The Europeans and languages, Eurobarometer, February 2001

[http://www.eurydice.org/Publication\\_List/En/FrameSet.htm](http://www.eurydice.org/Publication_List/En/FrameSet.htm)

links Thematic bibliography

Language teaching

Eurobarometer - European Union: <http://europa.eu.int/comm/dg10/epo/eb.html>

<http://www.eurolang2001.org/eyl/links/linklist.asp?SECTION=1&LANG=FR&CategoryLinks=11>

<http://www.linguanet.org.uk/websites/langorgs.htm>

Hopefully this information could be helpful!

Yours sincerely,

Catherine Seewald  
European Centre for Modern Languages  
[www.ecml.at](http://www.ecml.at)

04/11/01

pluralistic / —

> -----

> From: Max Espley  
> Reply To: Max Espley  
> Sent: Wednesday, July 3, 2002 8:39 am  
> To: 'National Languages Forum'  
> Subject: FW: languages hierarchy

>

>

>

>

>> -----Original Message-----

>> From: Joseph Lo Bianco  
> [SMTP:joe.lobianco@languageaustralia.com.au]  
>> Sent: 03 July 2002 01:03  
>> To: [natlangs-forum-request@mailbase.org.uk](mailto:natlangs-forum-request@mailbase.org.uk)  
>> Subject: languages hierarchy

>>

>> I have read the comments on choice of language with considerable  
>> interest.

>> May I suggest that the question is posed in an unproductive way. It  
>> is not

>> a hierarchy that counts, or should count, but rather what mix of  
>> issues and

>> experiences are important for British youngsters concerning languages  
>> other

>> than English. I also want to make some more points, a little from the  
>> outsider perspective, but I hope of some value nevertheless. I don't  
>> think

>> England runs the risk of being considered 'Eurocentric'. Having spent  
>> three

>> wonderful weeks recently in Scotland and England I think the issue  
>> really is

>> different: Will England in particular, and other parts of Europe in  
>> general,

>> make a full-blooded ommitment to the European experiment? While I  
>> totally

>> agree that the language choices should not be only the European



>> languages,  
>> and the official ones at that, and there should be proper and full  
>> provision  
>> for African and Asian languages, indeed for Celtic languages and for  
>> non-spoken languages too, it really is critically important for  
>> Britain, and  
>> especially England to fully 'join Europe'. That is my view. I don't  
>> see  
>> the choice or hierarchy issue as serious. If you examine other  
>> societies  
>> where region, world., locality etc all play their part in language  
>> education  
>> choices the conflict is more apparent than real. However to deny  
>> Europe is  
>> for Britain a major mistake in my opinion. The world needs more  
>> aggregation  
>> rather than less, and a multicultural Britain fully communicating  
>> BEYOND  
>> JUST ENGLISH with its European partners and advocating a pluralist  
>> line  
>> within the councils of Europe is really central. It is where Britain  
>> can  
>> make a significant contribution, alas not one I see it making at  
>> present.  
>> Cheers chaps, Joe  
>>  
>> Joseph Lo Bianco  
>> Language Australia: NLLIA  
>> Suite 4, The Atrium  
>> 51-57 Northbourne Ave  
>> (GPO Box 3175)  
>> Canberra ACT 2600  
>> 02 6230 4689  
>> 02 6230 6765  
>> [joe.lobianco@languageaustralia.com.au](mailto:joe.lobianco@languageaustralia.com.au)  
>> 0407 798 978  
>> [www.languageaustralia.com.au](http://www.languageaustralia.com.au)  
>

1/10/2003

ILS -

inter-net  
based course *learning  
English*Hilary Faulkner

From: "ittdc" <ittdc@mail.tvnet.hu>  
 To: <natlangs-forum@mailbase.ac.uk>  
 Sent: Monday, December 16, 2002 6:09 PM  
 Subject: Fw: MFL & SEN

- from Budapest  
 Hungary  
 Communication  
 lang.

From: ittdc <ittdc@mail.tvnet.hu>  
 To: Hilary McColl <h.mccoll@clara.co.uk>  
 Cc: <ac.uknatlangs-forum@mailbase>  
 Sent: Monday, December 16, 2002 8:45 AM  
 Subject: Re: MFL & SEN

Dear Ms McColl

I'm Leslie Simonfalvi, director of the International Teacher Training & Development College in Budapest, Hungary.

I couldn't agree more than I do with your personal answers to questions posed by a list member.

Some time ago, when we discussed the Green Paper, exactly the same topics came up and then I reacted on them in a long letter.

If you are interested, please visit our homepage. I put this topic under the heading 'Educational Psychopathology' because

- we have a sample of 300 teachers and 10,000 students on which the teaching and learning of foreign languages is effective and joyful, for teachers and students alike,
- the Government, i. e. the Hungarian Government, know about it, and
- they go on crying about the old system that doesn't seem to work, imagining that it can be mended by political means, more money, bureaucratic measures, and academic snobbery.

Best wishes as usual.

Leslie Simonfalvi

# Reaction to Green Paper.

Hilary Faulkner

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From: "Teresa Tinsley" <Teresa.Tinsley@cilt.org.uk>  
To: "'National Languages Forum'" <natlangs-forum@mailbase.ac.uk>  
Sent: Thursday, December 19, 2002 9:34 AM  
Subject: Nuffield's comments on the strategy

Posted on behalf of Alwena Lamping.

This is our initial reaction; we'll be commenting in detail at a later stage.

The Government's strategy for languages acknowledges the need for coherent action to improve national capacity. We welcome the unequivocal statement that language competence and intercultural understanding are not optional extras in the 21st century and that it is time to address the nation's long standing lack of capability in languages. However, we are not convinced that the strategy as proposed ~~will achieve~~ this goal; indeed, we fear that some of its proposals will have the opposite effect.

An early start to language learning is crucial, and we welcome the Government's commitment to introduce languages in all primary schools. Placing primary languages at the centre of the strategy makes sense but, if primary languages are to succeed, a firmer and more precise commitment than is evident in the strategy document will be needed. It is important that the government clarify at an early stage ~~what is meant~~ by providing an 'entitlement' for all children from age 7. There has to be a commitment that children from all backgrounds should have real and sustained opportunities to learn a language. The risk, of which the government is certainly aware, is that anything short of this will lead to serious inequalities.

We recognise that, if plans for primary languages are to go ahead on a reasonable time scale, not all teaching can be provided by fully qualified teachers. Teachers and language assistants will have to be recruited from a variety of backgrounds by a variety of means. The key will be to ensure high quality training, and we look forward to hearing further details.

The proposed introduction of a new system for recognising achievement in language learning has great promise. The key to success will be to resource the development of these new methods of assessment realistically and to set the right pace for the introduction of the system that is eventually developed.

We deplore the decision to make languages optional at age 14. It is a decision that undermines the coherence of the strategy. It means that even on the most optimistic of estimates the generation of pupils now at primary and secondary schools will have severely reduced rather than increased experience of language learning. Making languages optional from 14 will inevitably serve to weaken the government's own strategy. It sends out the contradictory message that government sees languages as an optional extra, and may have longer term effects on teacher supply. Many able pupils, whose future careers will need languages, will be encouraged to give them up too early.

Alwena Lamping

Nuffield Languages Programme

tel: 020 7681 9624

fax: 020 7323 4877



1/10/2003