

fair
assessment

for deaf candidates

Fair Assessments for Deaf Candidates

A Report to the Scottish Qualifications Authority

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Chapter One

Assessment Issues in relation to Deaf Candidates

This Report seeks to explore ways in which deaf candidates can gain full access to the assessment processes within the Scottish education system. There is some evidence that deaf children and adults face barriers to accessing both curriculum and assessment: the two are obviously closely linked.

In order to understand the kinds of barriers faced by deaf children and students, it is necessary to take account of the complex linguistic situation of deaf children and deaf adults.

This Report recognises that many deaf people will acquire a sign language, in this case British Sign Language, as their preferred means of communication. However, these deaf people have rarely been able to exploit their competence in BSL within the context of assessment. Recently, the Scottish Qualifications Authority (SQA) took the first step towards greater access to assessment for BSL users by allowing the signing of questions within the Standard Grade examinations. Within this Report it will be suggested that SQA should now make a more radical shift towards full access for deaf candidates by allowing signing not only in questions, but also within responses.

Two major sections of the Report deal with BSL: Chapter Three looks at the nature of the language itself and Chapter Seven at the feasibility of using BSL within assessments. It is essential that those involved in decision making in this area have an understanding of the differences - and similarities – between a language such as English, expressed in an oral-aural modality, and a language like BSL which exploits the visual-gestural modality. By coming to terms with how sign languages work, we may be able to see how they can be appropriately and effectively exploited within assessments. Chapter Four discusses the contact variety of signing which has arisen as a result of deaf/hearing interaction, as well as the systems of signing that have been developed with an educational purpose.

Many deaf people will not have had access to sign language. They will wish to access assessments through English. However, some deaf people have acquired skills in English relatively late and this may have had a negative impact on their development of English literacy. Such deaf people need to be given support to gain more adequate access to both curriculum and assessment. Chapter Four looks at the changing role of English in the lives of deaf people, while Chapter Eight looks at practical ways in which SQA can support access through English.

As we shall see, the linguistic situation of deaf people is by no means homogeneous. Nevertheless there are sometimes quite simple strategies which can be used to ensure that deaf people can gain more effective access. These strategies need to be identified and implemented.

Chapter Five provides an overview of the educational experiences of deaf children. The chapter gives some indication of the barriers to learning faced by deaf children. The

assessment system of itself cannot remove all such barriers, but it can ensure that linguistic choice and linguistic support are available within the assessment process.

Chapter Eight provides a brief reminder of the requirements, increasingly built into the legal system, that deaf children and adults have equal right to education and assessment. It is hoped that this Report, and particularly the recommendations in Chapter Ten, can provide the basis for discussion within SQA and possibly amongst deaf people themselves and education professionals about the best course of future action to support full equality of access to assessment for all deaf candidates.

Chapter Two

Deaf Candidates: The Background

Developing fair assessments for deaf pupils requires that we take account of the particular linguistic and educational circumstances of deaf pupils and that we are informed by the experiences of d/Deaf people themselves.

The Linguistic Situation of Deaf People

Deaf Adults

There are two main groups of deaf adults:

- ◆ Deaf people who use a sign language, British Sign Language (BSL), as their preferred language and who typically regard themselves as members of a minority linguistic community, the Deaf community;
- ◆ Individuals who are deaf, ie have a hearing loss and who use a spoken language as their primary medium of communication.

In terms of numbers, the second group is massively larger than the first. The Royal National Institute for Deaf People (RNID) estimate that one in seven of the UK population suffers from some degree of hearing loss. According to statistics compiled by the RNID, about 8.7 million people in the UK have some degree of hearing loss. The link between ageing and deafness can be seen in the fact that 55% of people over the age of 60 have some form of hearing loss. The RNID point out that, given that we are an ageing population, it is likely that by 2010, the overall numbers of deaf people will have grown from one in seven of the population to one in six.

Approximately 673,000 people in the UK are profoundly or severely deaf and around 420,000 of these are unable to make use of a voice telephone, even with amplification. There are nearly two million people in the UK who use hearing aids and it is estimated that a further three million may well benefit from using a hearing aid. These figures are comparable with those of other countries. In the USA, the figure for those with a hearing loss is put at 28 million, ie approximately 12% of the population. Indeed, Marschark suggests that if such figures are even approximately correct, then "... hearing loss is easily the single most widespread disability in the United States, and probably in the world." (Marschark, 1997, p.23)

Users of BSL are said to number around 100,000. In fact, we do not have fully accurate figures for either group. In the past, the number of BSL users has been variously put at anything between 50,000 and 100,000. What we do know is that

even in periods when there have been major factors working against its use, BSL has survived. In recent years, an increasing number of hearing people have chosen to learn BSL. When we add in also the numbers of families of Deaf people who also use BSL on a daily basis, it is likely that 100,000 is an underestimate. It is generally agreed that there is a core group, of around 70,000 for whom BSL is their primary language. According to the British Deaf Association, there are as many Deaf BSL-users as there are speakers of Scottish Gaelic, and more people (d/Deaf and hearing) use BSL than either Welsh or Gaelic (BDA, 2000).

The School Population

The link between old-age and deafness, as well as impact of environmental and work-place noise on the increasing incidence of acquired deafness, means that the numbers of people with some degree of hearing loss in the adult population is many times higher than within the school population. It is estimated that approximately 1 in 1000 births involves some degree of deafness. Additionally, childhood illnesses such as meningitis can cause deafness. Those who become deaf in early childhood may already have begun to acquire a spoken language. Thus childhood deafness is defined as of 'low incidence' and some of the difficulties of providing adequate educational provision for deaf children can be seen as linked to this low incidence.

Parents of deaf children

The majority of parents of deaf children, ie between 90 and 95%, are hearing. Thus only a very small percentage of deaf children grow up in a family where BSL is the preferred language. Even where hearing families wish to make BSL available to their child, the likelihood is that they themselves will not gain full competence in the language, at least during the child's early years.

The 'deaf'/'Deaf' convention

Within much of the literature relating to Deaf Studies and Sign Language Studies, there is an accepted convention of using an upper case 'D' in 'Deaf' to refer to those individuals with a hearing loss who regard themselves as members of a Deaf community, and a lower case 'd' as in 'deaf' to refer to those who have a hearing loss but who do not see themselves as belonging to a distinct community.

It might appear that the membership of these two groupings will relate primarily to age of onset of deafness and to the degree of hearing loss. Certainly, these factors may be relevant, but membership of the Deaf community is essentially socio-cultural. It would indeed be unlikely for a person who begins to experience some degree of hearing loss at the age of sixty-five to claim membership of, or be recognised as a member of the Deaf community. Nevertheless, individuals who acquire deafness earlier in life, may gradually become part of the Deaf community. This discussion concerns both types of deaf people. However, where it is important to distinguish between the two groups, the d/D distinction will be observed. The term 'deaf' (ie with lower case 'd') is used for all pupils with a hearing loss, since usually the deaf pupil's

sense of identity is being formed during the school years and it is important not to impose an identity on pupils.

Chapter Three

The Deaf Community and British Sign Language

It is useful to begin with the fact that within Scotland and the UK as a whole there is a recognisable community of Deaf people who make use of a signed language (British Sign Language - BSL) as their first or preferred language. BSL is a full language in its own right with its own grammatical structure. Research into the language began in the 1970s, with work in Scotland being carried out by the Edinburgh BSL Project, based at the then Moray House College of Education. There is now a substantial body of research on BSL and an even greater corpus of work on the nature of signed language generally and the different sign languages of the world. The disciplines of 'sign linguistics' and sign language studies are now internationally recognised and are contributing to new understandings within linguistics, neuro-linguistics, cognitive psychology and a range of other areas.

The specific nature of signed language, as opposed to spoken language, does have some implications for its use in education and in assessments. It is, therefore, essential that those making decisions relating to the use of signed language have a clear understanding of the characteristics of signed language in general and British Sign Language in particular.

The Nature of British Sign Language

The grammatical and lexical resources of BSL can be described and accounted for in the same way as human languages: all have levels of structure equivalent to phonology, morphology, syntax, lexis and semantics.

Manual signs	Signs made with one or both hands	By far the most frequent signs in the language
Multi-channel signs	Signs made with the hands and some other part of the body, eg closing of the eyes; stretched lips; puffed cheeks.	Relatively small but frequently used set of signs; used mainly in adverbial function.
Non-manual signs	Signs which do not make any use of the hands, but involve non-manual elements such as hunching the shoulders, nodding the head.	Very small set of signs, usually used as 'back responses'.



LECTURE



RESEARCH



**COULD HAVE HAPPENED, BUT
IT DIDN'T (PART ONE)**



**COULD HAVE HAPPENED, BUT
IT DIDN'T (PART TWO)**



AS IF (PART ONE)



AS IF (PART TWO)

Phonology¹

Manual signs are composed of regularly recurring elements, which do not themselves have meaning, but combine to create meaningful units. Thus they are comparable to the sound elements, ie phonemes of English. The phonemes of BSL are handshapes (such as closed fist, extended index finger; flat open hand and open hand with fingers spread); locations (such as forehead, mouth, chest and 'neutral space', ie the area immediately in front of the signer's body); movement (directional movement such as away from the signer, up, down etc); and hand arrangement (such as one hand behind the other; two hands side by side; one hand above the other and so on). These elements are combined simultaneously and sequentially. Multi-channel and non-manual signs make use of a limited set of non-manual elements, including movements of the mouth, eyes, cheeks, head, shoulders and trunk.

Thus we can see that BSL signs have 'well-formedness', in the same way as English words: certain handshapes do not occur within BSL signs, just as certain sounds do not occur in English. Similarly, certain combinations do not occur in BSL signs, even though they are physically possible and may occur in the signs of other sign languages. It is possible to mis-articulate signs, just as we can mis-pronounce English words.

Morphology

BSL has a very rich morphological structure. Just as English has meaningful elements smaller than words, ie morphemes, so has BSL. In English, we are familiar with inflectional morphemes, such as the progressive '-ing', the past tense '-ed' and the plural '-s', as well as derivational morphemes such as 'un-', 'de-', 're-', '-ise', '-ation'. Inflectional morphemes are required by the syntax; derivational morphemes allow us to create 'new' words as required, eg 'reassess', 'repaint', 'destigmatise'. BSL also has both categories of morpheme. The inflectional morphemes used by BSL are rather different to those in English. Thus BSL has a set of morphemes to express the grammatical category of 'aspect', ie expressing such meanings as 'continuing over time'; 'about to begin' 'completion', but does not use inflectional morphemes to express temporal information such as past, present and future. Moreover, inflections in BSL tend to involve movement morphemes expressed simultaneously rather than sequentially. Thus the verb WAIT uses a slow, repeated elliptical movement, with end marking to express the meaning 'wait for ages and ages'. The same sign used with short rapid movement also focuses on the duration of the waiting. Note that in English, such meanings are not marked on the verb, but by adverbial phrases, such 'ages and ages', 'hour after hour', 'a long time'.

¹ The term 'phonology' is generally used in sign language studies, despite the fact that it derives from the Greek word relating to 'sound'. William C. Stokoe developed a set of comparable terms, based on the Greek word for 'hand', but these forms, such as 'chereme', 'cherology', 'cheretics' are not now widely used.

BSL makes considerable use of derivational morphemes. However again, the types of derivational morpheme are rather different from English. BSL has, for example, set of classifier morphemes, including size and shape specifiers (SASSes) and handling classifiers. SASSes incorporate information about the size and shape of objects and handling classifiers indicate how one might get hold of an object. Many of the lexical signs relating to objects in BSL derive from classifier-based constructions. Classifiers play an important part in the process of visual encoding discussed further below.

Syntax

The syntax of BSL is characterised by both spatial and sequential patterning. Thus as well as having linear, sequential properties, BSL takes use of the space in front of the signer's body to locate referents. This allows different types of inflectional movement to be used, for example within verb forms, which exploit these locations to express such grammatical categories as number, distribution and verb-object agreement. Signers are also able to express one meaning with one hand, another meaning with the other hand, as well as making use of non-manual features - such as movements of the eyes, mouth, head and body - to express yet further meanings. Simultaneous spatial patterning interacts with sequential structure to form complex grammatical forms. It is therefore not always easy to identify a direct relationship between the patterning of clause elements (subject, verb, object, adverbial) or phrase elements (eg determiner, adjective, noun) occurring in BSL and the comparable patterning in English, since the latter is essentially linear (at the surface level).

The ordering of signs is important in BSL, just as the ordering of words is in English. However, signs can also be located at different points within the signing space. In a sentence like:

'The doctor approached the patient'

it is likely that the signer will locate each of the participants at different points in the signing space. The signer can then modify the directional movement of verbs accordingly. The signer may also use body shift to indicate who is communicating, or use a set of non-manual features to indicate that she herself has taken on a particular role. If, for example, the signer 'becomes' the doctor, then the verb EXPLAIN in 'The doctor explained all the problems' would be directed away from the signer's body towards the location in space where the patient has been located.

BSL thus requires a range of agreement patterning within and across sentences. In order for a signed sequence to maintain internal coherence, the signer needs to keep in mind how participants have been located in space. Just as the use of definite articles, indefinite articles and pronouns in English is a matter of textual coherence,

ie patterning beyond the sentence, so the BSL signer manipulates locations, verbs and non-manual features such as eye-gaze to create a coherent BSL text.

It is sometimes claimed that BSL is a 'topic-comment language'. Certainly BSL makes use of topic-comment structures, where the topic of a clause is marked by the non-manual features of head tilt, eyebrow raising and eye widening: the illustration on page 15 shows CAR marked as the topic of a clause. In fact, this patterning co-exists with clause element patterning, with SVO ordering being quite common. It may appear that this is not the case because of way spatial patterning is overlaid on linear structure.

Semantics

As with all languages, BSL has its own way of organising meaning. We cannot expect there to be a direct relationship between English words and BSL signs, just as we cannot expect such a direct relationship between English and Chinese or German and Chinese. One broad generalisation that we can make is that BSL often has more specific terms, relating particularly to visual characteristics, and fewer generic terms. Also, more information may be packed into a single form. Thus if we sign 'opened the window' in BSL, the exact nature of the signing will depend upon the type of window being opened. In English, we would have to add such information separately: '*John opened the sash window*'; '*John opened the window outwards, using a lever handle*'; '*John opened the sliding window*'. In all of these cases the information in italics would be expressed in a single sign incorporating the information expressed by a separate noun and verb in English.

There are numerous other differences in the organisation of meaning within the two languages. BSL does not make use of direct forms of address, but does have sign names. These are rarely used directly with the named person, ie usage such as 'What do you think, Margaret?' or 'You don't believe her, Mike, do you?' would not be typical of BSL. However, name signs would be used to refer to an individual, possibly absent, or not the direct addressee. Name signs may derive from some physical feature associated with the individual: thus they may refer to a person's baldness, or the fact that they have curly hair or wear lots of jewellery. Such usage is a normal part of Deaf culture and name-signs involving physical characteristics are not viewed as impolite. Hearing non-signers, coming from a different cultural background might see such usage as strange or even rude. However, the more interactions that occur between the different cultures, the more acceptance there is likely to be. The sign used in BSL for the dramatist Shakespeare is based on the ruffled collar depicted in the most famous illustrations of Shakespeare; in a science lesson on simple machines, the Greek philosopher Archimedes was given a name sign based on the curly beard shown in Greek statues of Archimedes.

**SHAKESPEARE****ARCHIMEDES**

Use of Non-Manual Features

As mentioned above, BSL does not simply make use of the hands, but exploits other bodily articulators. These are in fact used at every level of structure, as summarised in the table below. The pervasiveness of non-manual organisation within BSL contrasts with the lack of such features within artificially created sign systems such as Signed English (see p.37ff).

Phonological/ Lexical	Multi-Channel Signs These involve obligatory non- manual features. Thus the sign glossed as TERRIBLE involves lip rounding, sucking in of the cheeks and the head and shoulders moving back.
Morphological	A range of non-manual markers, including stretched lips, puffed cheeks and slight tongue protrusion can express meaning, particularly adverbial meaning such as 'with effort', 'considerably' and 'unpleasantly'.
Syntactic	Non-manual markers are used in BSL to express grammatical structures such as topic-comment utterances, negation, 'yes-no questions' and 'wh-questions'.
Discourse	Non-manual markers express discourse information, such as reference and role-shift (eg, indicating which role the signer is taking on at any given moment and marking change of role).

**TERRIBLE****PUFFED CHEEKS (INTENSIFIER)****CAR (MARKED AS TOPIC)**

Impact of the Visual-Gestural Modality

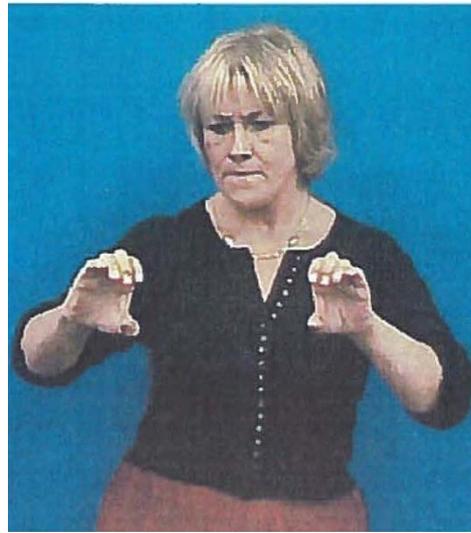
While sign languages can be described in many of the same terms as spoken languages and there is evidence that they exploit the same underlying patterns of organisation, the modality in which they are expressed, ie the visual-gestural modality, does have an impact upon their organisation.

There are two key inter-related factors worth drawing attention to here: the role of **visual motivation** and **visual encoding** in such languages. In the past, sign languages have been dismissed as 'pictorial gesture'. While such terms were used negatively, particularly during the first two thirds of the twentieth century, linguists in

the final part of that century began to explore these notions in a more careful way. It is now generally accepted that sign languages do use what are sometimes called 'motivated' or 'iconic' forms rather more than other languages, although the degree and nature of motivation in sign languages remains a matter of some debate in sign linguistics.

Visual motivation

In English, we do not expect the forms of the words 'cat', 'pipe', 'negotiate' or 'argue' to reveal something about their meaning. The relationship between the form of the word and its meaning is purely arbitrary. However, it could be argued that the relationship between form and meaning in all of the equivalent signs in BSL is motivated. The sign CAT involves two spread, bent hands at either side of the mouth and appears to be linked with the whiskers of a cat. Similarly, the sign ELEPHANT makes use of the 'c' handshape, making a long curved movement away and down from the signer's mouth. This is clearly based on the elephant's trunk. In order to decide which sign to use for 'pipe', we need to know what kind of pipe is being referred to. A gas or water pipe will be signed using a form based on the classifier handshapes for cylindrical object: the precise handshape chosen will depend upon the perceived size of the pipe. A pipe used for smoking will be signed using the handshape in which the fingers are closed into a fist, but the thumb and little finger are extended. The thumb is then held at the mouth. The signs for 'Pan pipes' and 'bagpipes' derive from handling classifiers, ie how the instruments are actually held and fingered.

**SMALL NARROW PIPE****LARGE PIPE****PIPE (FOR SMOKING)****BAGPIPE**

The notion 'negotiate' is an abstract notion, not a physical object; therefore we might expect that the sign would be arbitrary rather than motivated. Nevertheless, the sign NEGOTIATE is not arbitrary. The sign is made by the two flat hands, held above one another in front of the body and making a to and fro, alternating movement; simultaneously the head is tilted slightly and the lips are closed and stretched. Here the motivation, ie the relationship between form and meaning, is expressed by what has been described as a metaphorical relationship: the alternating movement of the hands represents the alternating interaction of participants negotiating. The same use of this metaphorical relationship can be seen in such signs as COMMUNICATE, DISCUSS and TURNTAKE. A different metaphorical relationship can be seen in the

sign ARGUE: here the physical opposition of the two hands represents the individuals who are in opposition to each other (In fact, many languages, including English, make considerable use of spatial metaphor- see Lakoff, 1980, for a major discussion of this). The alternating up and down movement of the two hands seems in this case to stress this opposition. Again the same underlying metaphor can be seen in other signs in BSL, including ENEMY, CONFLICT, and COMPETITION.

One further type of relationship can be seen in signs which exploit a conventional relationship between a particular form and a particular set of meanings. The BSL sign SUSPICIOUS actually expresses two such conventional relationships simultaneously. The head is conventionally associated with thinking: this is not surprising, given that it is the location of the brain. The handshape in which the little finger is extended from a closed fist is conventionally associated with 'badness' and has negative associations. The sign SUSPICIOUS makes use of the little finger extended handshape held at the forehead and making small circular movements, ie thinking negative thoughts over time -'suspicious'. We can see the same location used for many signs relating to thinking in BSL, such as CONSIDER, COGNITION, CONCEPT and MULL OVER. Similarly the same handshape can be found in other signs relating to 'badness': FAULT, CRITICISE and BLAME. The other main handshape in BSL which expresses a conventional relationship is the 'thumb up' handshape, ie thumb extended from a closed fist. It so happens that the same convention is used in the case of the thumbs-up handshape within the wider hearing society in the UK (and in some, but not all, other parts of the world). However, the little finger up is not used in this way either in the wider hearing society, or in many other sign languages, eg American Sign Language. A sign made almost identically to SUSPICIOUS means CONSIDER in ASL: the conventional link between head and thought is the same, but not the link between the handshape and 'badness'.

The types of motivation are summarised in the table below:

Summary of Form-Meaning Relationships in BSL

Type of Relationship	Explanation	Key Example
Resemblance	The form of the sign in some way resembles the meaning	The trunk of an elephant in ELEPHANT
Handling	The form of the sign indicates how people handle the object, or part of the object, concerned.	Handling strings in PUPPET
Metaphorical	The form of the sign bears a metaphorical relationship to its meaning.	The to and fro movement of the sign NEGOTIATE represents the interaction involved in the process of negotiating.
Conventional	A particular form is conventionally associated with a particular type of meaning.	The little finger up handshape is linked with 'badness', the 'thumbs-up' handshape is linked with 'goodness' as in CRITICISE and PRAISE
Arbitrary	There is no direct relationship between form and meaning	The sign EXISTS appears to be purely arbitrary



ELEPHANT



PUPPET



NEGOTIATE



CRITICISE



PRAISE



EXISTS

As we shall see below, the non-arbitrary relationship between form and meaning in many signs is seen by some as posing particular challenges in respect to assessment processes. However, it is essential that those considering these processes are aware of the complex interplay of factors here. We need to move away from crude notions of the 'pictorial' nature of signs. It would be highly unlikely that a hearing person who does not know BSL would be able to follow a normal BSL interaction, even though many of the signs will be motivated in the ways described above. This is because the language still exploits a limited set of physical gestural components to express these relationships, and this set will differ from sign language to sign language. There is also a complex interplay amongst the different types of motivation, with more than one type potentially being exploited within a given sign. Moreover, although Deaf people from different sign language backgrounds can develop a 'lingua franca' in direct interactions more easily than hearing people in comparable situations, they may well not be able to understand a fluent user of a different sign language. Thus the sign languages of the world although all to some extent visually motivated, are not mutually comprehensible.

Visual Encoding

Visual encoding is a direct corollary of visual motivation. It refers to the tendency to encode visual information within BSL as a matter of course. However, visual encoding is not only affected by the nature of the vocabulary of BSL, but also by its spatial syntax. What does this mean in practice? It means that the language used by a Deaf person will often provide us with information about the visual world, which in English we would only provide if we thought it were particularly important. Thus if a Deaf person signs that she went into a bank and paid in some money, we would be likely to learn something about the physical features of the bank and the people involved. We may well learn what kind of entrance the bank has, eg steps, a ramp, a curved path; we might learn that the doors are automatic doors which slide to the sides or outwards, or revolving doors; we may discover that the queue for the tellers winds in a particular direction, that the desks are at the back of the room or to the left; that the teller is sitting or standing. It may not be the case that absolutely all such information would be included, but the signer could well make choices which automatically provide this information. This may occur even though the signer does not wish to focus attention deliberately on any of the visual details: the language lends itself to incorporating such information. This contrasts with English, where we would tend only to mention what type of door the bank had or the positioning of the tellers if this seemed particularly important.

It may be worth explaining this in more detail by describing a point which arose during the BSL interpretation of lessons on pulleys and levers within a class of deaf children. In one session, the teacher was drawing attention to the relationship between the fulcrum, the load and the *effort* in describing particular categories of lever. She examined such levers as a wheelbarrow, a garlic press, a stapler, barbecue tongs and scissors. While the teacher used the same term 'load' to refer to

a range of different objects which acted as loads to the different levers, the natural tendency of the interpreter, indeed the natural tendency of BSL, was to use sign forms which incorporated more precise information on the nature of the load.. Thus size and shape classifier forms were used to refer to the contents of the wheelbarrow and baked potato (re barbecue tongs); handling classifier forms were used to indicate the handling of paper (re stapler and scissors) and garlic (re garlic press). When the teacher went on to explain the dangers of a shifting load on a car ferry, again the BSL version showed explicitly that the load referred to vehicles. Although it is possible to get across the same meanings in both languages, the ways that the two languages organise the information are very different. As we shall see this has implications when we look at trying to ensure that both hearing and deaf children are given precisely the same information in an assessment.

BSL has no written form

BSL does not have a written form. This fact can encourage individuals to view BSL as somehow less of a language than English or even as not a full language at all. However, linguists argue that BSL is indeed a full language, as are the many other sign languages and spoken languages throughout the world which do not have a written form.

A number of different transcription systems have been developed by researchers to allow direct coding of the language without resource to English. The *Dictionary of BSL/English* (Brien, 1992) exploits a notation system based on the system developed by the Edinburgh BSL Research team (Brennan et al, 1984) which is in turn based upon that developed by William C. Stokoe for American Sign Language (Stokoe et al, 1975). This allows individual signs to be written down based on their phonemic structure. In this respect, the notation system is comparable to the writing system of English. However, the system currently makes use of a number of different types of symbol, as well as superscripts and subscripts. It is thus not particularly easy to deal with, particularly within word processing. The system is currently being re-evaluated with a view to designing a more user-friendly version (Thoutenhoofd, 2000).

As well as other notation systems, some attempts have been made to design writing systems for sign languages. Probably the best known is the Sutton Sign Writing system, which was originally developed for American Sign Language (ASL). While this has not gained full acceptance throughout the USA, some Deaf people do make use of it and a news magazine is published making use of the system is published on a regular basis. Sutton Sign Writing has also been used to some extent in other. A version developed for Danish Sign Language is used within the Danish Deaf Education system. Thus we should not rule out the evolution of an efficient and appropriate writing system for BSL.

Technological Literacy

Although the absence of a writing system may be seen as problematic for education, we can also recognise the existence of what has been termed 'technological literacy' with respect to BSL and the Deaf community. This refers to the fact that some of the functions of written literacy can be captured by the use of new technology.

Essentially written literacy allows language to be retained over space and time, rather than being transitory; it also allows language to be produced in one place and time and received in another. These functions can be achieved for sign languages by the use of new technology. In the early 1900s, film allowed signing to be captured for future generations. However, the advent of video has had the greatest impact on the recording and storing of sign language texts. Now the use of digitised video data makes it even easier to store texts on computer for retrieval at different times, by different people, in different places. We are only just beginning to explore the potential of this within the education of deaf children. It is suggested here that this technology will provide enormous benefits for deaf pupils in terms of both accessing the curriculum and accessing assessment.

Thus while the absence of a written form does have consequences for the use of BSL in examinations and assessment, the exploitation of movies of BSL within computer formats provides us with a possible alternative to the written form.

Chapter Four

The Role of English in the Lives of Deaf People

Deaf adults within Scotland and the UK typically also make use of a spoken language. The spoken language concerned may be English, Gaelic, Hindi, Gujarati, Urdu or any of the other languages used in Scotland and the UK. However, even where the language of the home community is not English, for the majority of deaf children the spoken language to which they are exposed in educational contexts will be English.

As indicated in Chapter One, English is the preferred language, indeed the first language of many deaf adults, especially those who have gone deaf later in life. Deaf people who have been able to access and acquire English from an early age will not have had the same difficulties in acquiring English literacy as those who have not had such access. Thus as deafness becomes a part of their lives, they typically seek more support in accessing their first language, either through the use of hearing aids or through visual support, such as lip-reading and subtitling.

For those deaf people who did not have such early access the situation is very different. As we shall see in Chapter Six, deaf children have a range of different experiences of English within their families and within education.

In the past, and still to some extent today, Deaf adults (ie those who were born deaf or acquired deafness early) often had a negative experience and a negative view of English. There seems little doubt that this was linked to their negative experience of learning English at school. Given that their own production of English, whether spoken or written, was often viewed in terms of errors and failure to conform to hearing norms, this is perhaps not surprising. Even today, many Deaf adults choose not to use spoken English directly, and make fairly limited use of the spoken medium. Some have described how their spoken language was praised within their own educational environment, but when they went into the wider hearing society it was regarded as unintelligible (Lawson, 1979). This put them off communicating directly in English.

The Deaf experience of the written language has also often been negative. As described in Chapter Six, standards of literacy, as compared to hearing norms, have been seen as low. The writing of Deaf people has been analysed in terms of its failure to match the standard written language and in terms of the numbers and types of lexical and syntactic errors. While no doubt researchers often carry out such analyses with the best of intentions, for example to discover strategies to support more effective literacy, the overall effect on Deaf users has been a negative one.

Changing attitudes to English

In recent years, however, there has been a gradual change in the attitudes of many deaf people towards English. This seems to be because technology has allowed English to play an increasing role in Deaf people's lives. The increased use and availability of text telephones over the last 15 years has enabled Deaf people to keep in touch with each other through English. It is also worth noting that many Deaf people, especially Deaf professionals, make considerable use of fax machines. More recently, email and multiple format mobile phones have enabled Deaf people to exploit English within long distant communication more and more. These technological developments have allowed Deaf people to communicate directly with one another in written English without comments on the appropriateness of the structure of the language by hearing people. It is probable that Deaf people are making much more use of written English than at any other time in history and that this is bringing a new confidence and ease of use.

A second influence has been the increasing availability of subtitled TV programmes which has allowed more Deaf people to access mainstream TV programmes. The Government is committed to a substantial increase in subtitled programmes in coming years. Thus even Deaf people who use BSL as their first language typically make use of subtitled formats.

It should be noted that in all of these uses, Deaf people are able to use English for communication without having to worry about the structure of their English: their prime motivation is communication. While initially their text telephone communications were often only with other Deaf people, now more and more communications are between Deaf and hearing people. For the most part, those engaged in such communications have gone beyond worrying about the detail of English structure. However, when such Deaf people do wish to produce English in a written form for wider circulation, they are now much more aware of the resources they can exploit, such as spell checks and grammar checks, to enable them to do this effectively.

In considering the use of English by Deaf people, it is worth stressing that some individuals who might technically have been regarded as having low level literacy skills on leaving school, now hold high level posts for example in universities, the media and voluntary organisations. They were recruited into these positions not because of their skills in English, but because of their competence and skills in relation to the particular posts, typically articulated through BSL.

The Relationship between BSL and English

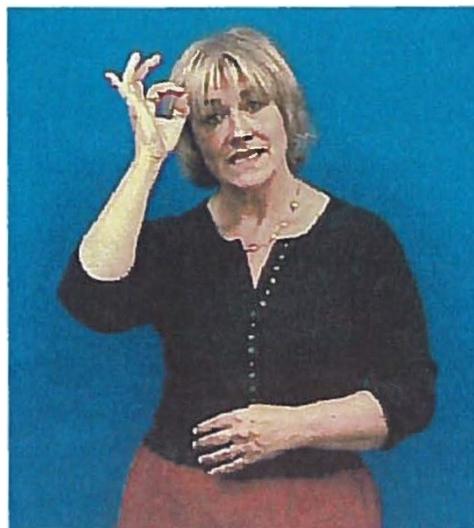
Given that Deaf people typically make some use of both of these languages, it is not surprising that there is some influence from one to the other. It is also not surprising that given that English is the majority language and that most English speakers do also use BSL, the influence is mainly from English to BSL. BSL borrows from English

in a number of different ways. The three main types of borrowing from English in BSL are:

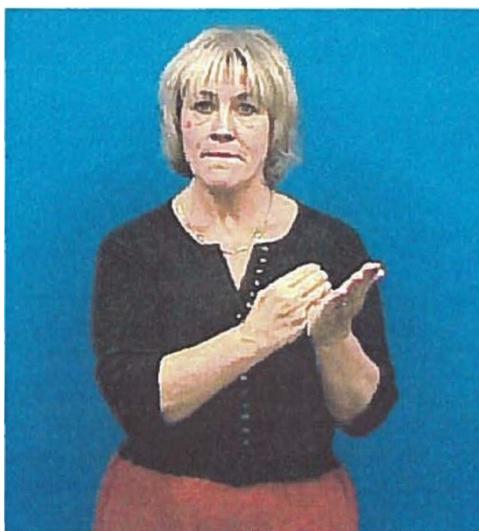
- ◆ fingerspelling
- ◆ English-based lip pattern
- ◆ literal lexical borrowings

Fingerspelling makes use of different arrangements of the hands to represent the letters of the English alphabet. This allows us to represent any word in English in a gestural format. Those who do not know BSL often confuse fingerspelling with signing. Fingerspelling can be used independently of signing, but also as an integral part of a sign language. The majority of fingerspelling systems, including those within Irish Sign Language, and American Sign Language use one-handed manual alphabets, but some like the British system, use a two-handed alphabet. This has some impact on the nature of the forms that are used within BSL.

Where signers exploit a one-handed finger spelling system, there is a greater tendency for 'initial letter signs' to develop. Here the signer makes use of a form which looks like other signs of the language, ie it will have a particular handshape, location and movement, but the handshape is borrowed from the manual alphabet. Irish Sign Language, for example, makes use of the signs meaning HURRY UP, and HOLY which make use of the handshape in which the index finger and little finger are extended from the closed fist: this is the letter -h- in the one-handed Irish manual alphabet. Indeed Irish signing has a wide range of name signs directly based on the manual alphabet: Margaret, Jeff and Gerry, all look like typical signs of the language but in fact exploit the initial letter of each of these names.

**HURRY UP****GERRY**

British fingerspelling makes use of only one single-handed letter, the letter-c-. We can see the influence of this form in the signs COMMUNICATION, COLLEGE, CURRICULUM and COPYRIGHT. There are some signs which use initial letter forms, even though they are two-handed, such as RUBBER, NOUN, FATHER and MOTHER.

**CURRICULUM****FATHER**

Hearing people tend to think of fingerspelling (which many may have learnt as Girl Guides, Boys Scouts etc) as involving the articulating of each individual letter. However, when used within fluent signing, fingerspelled forms usually undergo a range of changes so that the resulting gestural configuration no longer looks like individual letter forms. Sometimes the changes are so great that the resulting forms are called 'loan signs' since the forms take on the properties of BSL signs. In Scotland, the BSL sign for the football team Celtic derives from the spelling out of the individual letters. However, while it is possible to recognise the letter 'c' configuration at the beginning and end of the sign, the intervening letters have been reduced to a mere movement of the dominant hand.

Lip-Pattern

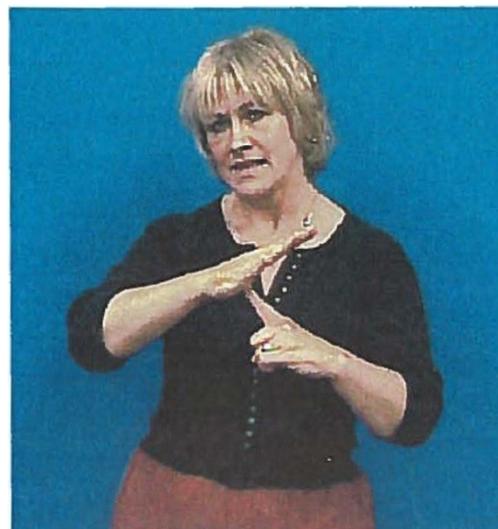
Deaf signers often use a lip-pattern linked to an English word associated with the particular sign form. The extent of lip-pattern will tend to vary even within an individual signer and will be affected by the signer's own background, the person s/he is signing with, the formal context and so on. Frequently signers make much greater use of English lip-pattern when communicating with hearing people. Full use of English lip-pattern would make it difficult for the signer to represent other BSL information on the mouth.

Literal Borrowing

Over the years, there have been what might be termed literal borrowings from English. Examples would be using the sign 'key' (meaning a door key) in the context of discussing 'key issues', where we might expect the signer to use the sign glossed as IMPORTANT or SIGNIFICANT.



KEY (AS IN DOOR KEY)



KEY (AS IN IMPORTANT)

English idioms such as 'hot potato' as in 'It's a political hot potato' or 'couch potato' might be signed literally, even though there are other ways of signing these meanings in BSL. Deaf people are becoming more and more aware of differences between BSL and English and many of these forms would be regarded as 'unacceptable' usage, or as based on hearing usage. However, such literal borrowings do remain a feature of some Deaf usage.

Chapter Five

Contact Varieties and Sign Systems

The Use of Contact Varieties

The desire for communication between Deaf and hearing people has resulted in the use of what are sometimes called pidgin sign languages or contact sign varieties. These varieties are like other pidgin languages:

- ◆ they derive from the languages of the two groups who wish to interact;
- ◆ they show the power of communities to create new forms of communication to meet social needs;
- ◆ they have a limited vocabulary;
- ◆ they have a more reduced grammar than the languages from which they derive;
- ◆ they have a limited set of functions.

Pidgin languages are highly variable, both within the usage of an individual user and across users. This high degree of variability is linked to a range of factors, including the extent of the users' familiarity with each of the source languages, the expectations of the users, the requirements of context and so on. Within Deaf-hearing interactions, many factors come into play: whether the individuals were brought up in a signing or an English environment; the age of exposure to each language; the expectations of the hearing participant, based on their view of the Deaf person's degree of hearing loss; the age of the participants and so on. Each individual will adapt towards their perceived notions of the other's skill in their own language. Thus a signer may add more lip-pattern and fingerspelling while retaining essentially BSL syntax. In other circumstances, sign order may approximate more to English word-order. The participants use whatever they perceive to be most appropriate in the situation.

The term 'contact variety' is used within sign linguistics for this phenomenon. However, in informal parlance, the term Sign Supported English is sometimes used to describe the same phenomenon. This can be confusing since the term is also used to describe a form of communication which has been developed for a clear educational purpose, ie to make English more accessible to the deaf pupil (see further below).

We also need to recognise that because d/Deaf people themselves have such a range of different backgrounds, one might find a 'contact variety' even where both users are deaf. Thus a Deaf person who has developed BSL as a child, may well adopt a more mixed form when communicating with a deaf person who has grown up within a spoken language only environment. Similarly, a hearing child of Deaf parents who has grown up using BSL will have native competence in the language: a

Deaf BSL user interacting with such a person will normally not feel the same need to adapt towards a more English norm.

The complexity involved in describing these mixed forms can be recognised once we realise that different types of information can be carried by different manual, non-manual and vocal articulators. Some realisations of contact varieties will use vocalisation of English words: others will not; some will use mouthing of English words: others will not; some will use many fingerspelled forms: others will not; some will use fully English-based syntax; others will use a mixture of BSL and English syntactic patterning.

Other Types of Variation

Users of BSL and English will also exploit different varieties within each of these languages. Such varieties will relate to social and situational factors. Thus a person's English may differ from that of another because of their geographical location, socio-economic background, age and sex. However, this does not mean that a woman of 40 from middle class Liverpool will always use exactly the same variety of English. Situational factors, such as the status of the participants, the topic of the communication, the type of discourse (eg a lecture, a discussion, a chat in a pub etc.) and the purpose of the discourse will all play a part.

The same is true of BSL users. However, once again there are additional factors. During the first two thirds of the twentieth century, many Deaf people were educated in residential schools. Even though most of these schools adopted an oral policy, ie signing was not used within the classroom, deaf children made use of signing. Often local school 'dialects' or varieties developed. Even today, certain signs are recognised as 'Boston Spa' signs or 'Donaldson's' signs. Such variation will be interwoven with the other types of variation mentioned above to create quite complex sociolinguistic patterning.

Signing Systems used within Education

As suggested above, it is useful to distinguish between those varieties which have developed naturally within the Deaf community, those which have developed naturally in Deaf-hearing interactions and artificial mixed forms, such as Signed English. Those who use Signed English aim to make English visible to the child by exploiting the visual-gestural modality. The aim is to make the grammar and vocabulary of English directly available to the deaf child. A further goal is to provide the child with full vocalisation along with individual signs paralleling the spoken form. The signs used within Signed English are taken directly from the vocabulary of BSL. (One system of making English visible, the Paget-Gorman Sign System actually uses artificially created signs. However, this system is now used rarely in Scottish education: it was used as the primary medium of communication in Aberdeen School for the Deaf for many years, but this policy has recently changed.) In order to make the full grammar of English visually available, signs have been developed to

represent grammatical inflections, prepositions, definite and indefinite articles and other elements which are not part of the grammar of BSL.

The notion of making English available to the deaf child through the visual-gestural medium would seem to be eminently sensible. We know that the child is able to access the medium, so presumably the child will be able to access the grammar of the language. However, research (summarised in Johnson, Liddell and Erting, 1990 and Lynas, 1994) suggests that Signed English does not achieve what its proponents hopes it would achieve, namely acquisition of English. There seem to be two key problems:

The visual-gestural modality appears to lend itself to spatial-simultaneous patterning, as exhibited in all the sign languages of the world so far researched. Deaf children are able to tune into this form of patterning very quickly. What they do, in fact, is to manipulate the Signed English input offered by the teachers, so that it approximates more to BSL. This demonstrates the inherent linguistic competence of the child, but it does not lead to linguistic competence in English.

The ability of deaf children to develop a much richer linguistic system from an 'impoverished' input has been used by linguists such as Noam Chomsky (BBC Horizon, 1997) and Stephen Pinker (1994) to argue for innate linguistic competence. The work of Kegl (1994) and Senghas (1994) with respect to the emergence of a 'new' sign language in Nicaragua, stressed that very young deaf children were able to take the pidgin signing of older students and create from it a complex and vibrant language. The work of Sam Supalla on the changes made to a form of Signed English known in the USA as Manually Coded English, also provides evidence that deaf children do not simply replicate this form of signing in their own production, but as the title of one article on the subject suggests, the children 'surpass their models' (Singleton and Newport, 1993). It may seem odd to describe Signed English as 'impoverished input': clearly English is a highly complex, rich language. However, English has evolved within the spoken, not the visual-gestural medium. Deaf children manipulate it so that it works more effectively within a visual-gestural medium, but in doing so they take it a long way from English structure.

A second factor limiting the effectiveness of Signed English is that research has shown that very few teachers use all of the English grammatical markers in their signing. To do so generally alters the natural flow of both signing and speech. Teachers typically retain the spoken English and simply add signs from BSL to provide a visual support for what they are saying. Thus the aim of expressing the grammar of English visually is most typically not achieved (see discussion in Johnson et al, 1989).

This type of usage has in fact led to what is probably the most commonly used form of teacher signing within Scotland and the UK, namely Sign Supported English or

SSE. For some teachers, the primary aim of SSE is to facilitate accessible communication; for others the primary aim again is to facilitate the development of English. As indicated above, SSE when used within education allows teachers to use BSL signs to support what they are communicating primarily in English through speech.

Some proponents of both SE and SSE operate on a 'sign to word' basis. This means that they would use exactly the same sign for the different meanings of 'pipe' illustrated in Chapter Three, or the different meanings of 'handle' illustrated in Chapter Seven. This type of usage is contrary to the principles underlying the organisation of BSL grammar. This might not seem to matter, given that the aim is to facilitate access to English. However, as we have seen, young deaf children seem to latch onto the inherent patterning of the visual-gestural modality. This is what makes their signing often difficult to understand by hearing teachers, but easy to understand by Deaf people.

Implications for Use in Assessments

There is little doubt that SSE is used in many schools in Scotland. It might seem appropriate then to offer deaf candidates the option of accessing assessments through SSE, or even SE. It is suggested here that it would be inappropriate to present examination questions in SE or SSE for the following reasons:

SE and SSE are inevitably extremely variable in form. Some teachers do not accept any BSL grammatical features within SSE; others seek to incorporate BSL grammatical features.

ISE and SSE are less efficient systems for conveying information than either English or BSL: this is demonstrated by deaf children's own manipulation of these systems so that they are more like BSL.

However, it is recognised that we need to be positive towards the wide range of signing varieties used by deaf pupils. This issue is discussed further in the context of accessing assessments in BSL in Chapter Seven.

Chapter Six

The Educational Experience of Deaf Children

In order to understand the complex reality of deaf children's linguistic and educational experience, it is worth beginning with two seemingly contradictory statements:

"Deaf children are able to acquire a language, but only if they are given a chance to do so."

Brennan, 1975

"Neither language competence nor access to the language of the classroom can be assumed for deaf pupils. This has implications both for educational achievement and assessing attainment."

Powers et al, 1999, p. 7.

There is now almost universal agreement that deaf children have the same linguistic potential as other children (Brennan, 1975; 1999; Lynas 1994). This means that if exposed to a language which they can access fully, ie a sign language, then deaf children will acquire that language at the same rate as hearing children acquiring a spoken language (Brennan, 1975, 1999; Petitto, 1994; Volterra and Erting, 1994). Typically, however, deaf children do NOT acquire a sign language early. This is partly because the majority of deaf children are born to hearing parents who are not given support to access signing and partly because of the policies that are currently adopted in relation to deaf children.

There is also almost universal agreement that deaf children will have difficulty in accessing and acquiring a spoken language. Lynas, a proponent of auditory-verbal education, comments:

"Deafness from birth, however, imposes a severe threat to the development of verbal language and communication. The deaf child has the normal human capacity and potential to assimilate language and to develop all the complex rules of language and communication through culturally mediated contact with other human beings. He or she is potentially just the same as any child in this and other respects but can be prevented from realising that potential if the vital link of hearing, which normally triggers that development through access to the speech of others, is missing. Language which is acquired without much conscious effort or struggle by a child with normal hearing, during the early years of life, can become an elusive goal for many young deaf children and without language, access to wider cultural socialisation and education becomes difficult."

Lynas, 1994, pp 1-2

The term 'deaf' here covers a wide spectrum of individuals with a hearing loss. For the most part this discussion will include those children who have anything between a moderate and a profound loss. Most deaf children do not have a total loss, ie they often have some residual hearing. However, the way in which their hearing loss distorts perception of the human voice will depend on the specific nature of that loss. What we can say generally is that even with hearing aids, the child's perception of sound and in particular of speech, will be different from that of the normal hearing person. This is generally agreed amongst those who work with deaf children, even while there may be different views on how to deal with this situation:

"Depending on the degree and type of hearing loss, hearing-impaired children clearly have impaired speech perception. However, the problem does not stop here. Impaired speech perception leads to problems with language acquisition and cognition, which become evident in their communication."

Bench, 1992 p.21

One caveat to the above statement is that impaired speech perception leads to problems with spoken language acquisition, not with language acquisition *per se*. Thus there is plenty of evidence from everyday life and from the research literature that deaf children who have access to a sign language, eg those deaf children who have deaf parents who sign, will acquire that language easily and naturally (see for example the articles in Volterra and Erting, 1990 and Chamberlain, Morford and Mayberry, 2000).

However, because the majority of deaf children are born to hearing parents and because, for the most part, in most geographical regions there is only limited support - if any - for the early introduction of signing to hearing parents and their deaf child, most deaf children do not acquire either a sign language or a spoken language at the normal age of acquisition. This language delay may have negative consequences for the child's social and cognitive development and for their education. Inevitably, it has a major negative effect on the acquisition of English-based literacy.

The Educational Achievements of Deaf Pupils

The Department for Education and Employment in England and Wales recently commissioned a review of the literature on the educational achievements of deaf children and young people: this overview was published in 1998 (Powers et al, 1998). A brief resume of this research is presented in Powers et al, 1999.

As the authors point out, the last major study of the achievements of deaf young people was undertaken by Reuben Conrad in 1979 (Conrad, 1979). Conrad's work had a major psychological impact on the education of deaf children in that it provided evidence of very low standards of achievement: a situation which many assumed to be the case but for which no formal evidence was available. Perhaps the most commonly quoted finding from Conrad's study was his observation that he recorded **a mean reading age of 9.0** in his sample of 469 students. Two other findings are worth noting from Conrad's account:

- ◆ there was a marked overall negative effect of hearing loss on reading performance of deaf learners with hearing losses of 85dB or over (thus the mean for specific cohorts was just over 8.0)
- ◆ when the mean reading ages were compared by t-test, 4 out of 5 tests used showed a significant advantage for deaf learners with deaf parents.

Put simply, the more deaf the pupils were, the more difficulty they had with reading. Those with deaf parents were likely to do better than those with hearing parents.

Powers et al, in reviewing the research literature since 1979 state:

"Most studies show that, in general, deaf learners lag several years behind hearing learners in their reading achievement."

Powers et al, 1999, p. 3.

They also comment:

"..we have no evidence to demonstrate an overall significant improvement in the education of deaf children since Conrad's study."

Powers et al, 1999, p. 8.

Many deaf children continue to have lower levels of English literacy than their peers. Current approaches to reading often stress the relationship between spoken English and literacy skills. Thus the deaf child's visuality is often not exploited to the full in the early years.

Currently there is very little direct evidence to suggest that the situation of deaf children in Scotland is any better than for the UK as a whole. There is no specific information available on the educational achievements or attainments of deaf children in Scotland. However, the SEED has recently awarded a substantial grant to the University of Edinburgh to develop a programme of research which will provide more accurate information about deaf children's achievements. The aim of this research is not only to provide raw data on achievements, but to provide a supportive base for pupils, teachers and parents, so that achievements can gradually be improved (Brennan, 2000).

For the moment, however, the statement above by Powers et al is one which should give us considerable pause for thought. If neither language competence nor access to the language of the classroom can be assumed for deaf pupils, how can SQA develop fair assessments? Indeed, are fair assessments possible if pupils cannot access the language of the classroom and hence the curriculum? There is a danger that SQA may be being asked to rectify basic inherent flaws in current educational provision.

There is an alternative. Instead, **SQA can take a lead by recognising the inherent linguistic and educational potential of all deaf children and developing assessment procedures which enable pupils to have both linguistic choice and linguistic access.** This option is explored more fully in later chapters.

Approaches to the Education of Deaf Pupils

The different approaches which have developed in relation to the education of deaf children revolve primarily around the language choices available to the deaf child. These different approaches are delivered within different educational settings, ie within mainstream schools, 'resourced' schools, hearing-impaired units attached to mainstream schools or special schools.

There are currently three main approaches:

English Only

Within this approach, English is seen as the main medium of expression and the language through which the pupil will access the curriculum and assessment. Most deaf pupils within mainstream settings access the curriculum only in English. They may be given additional support from a visiting teacher of the deaf or there may be teachers of the deaf and/or other support staff attached to the school who will support the pupils on a more regular basis. The extent to which a school, service or local authority adopts an explicitly monolingual approach to provision varies.

Some services may explicitly espouse an *auditory-oral* approach, sometimes also described as an *oral-aural* approach or an *auditory-verbal approach*. The different labels may imply different emphases on specific components. The basis of this approach is that deaf children should be encouraged to develop whatever residual hearing is available to them. Auditory skills are given priority and acquisition of spoken English is seen as an achievable goal. Practitioners of this approach also see everyday experience of spoken English as essential. The extent to which visual access to English is encouraged varies. Visual access would include developing and using speech-reading (lip-reading) skills and exploiting subtitling. In some versions of the auditory-verbal approach, for example, as practised in parts of the USA, deaf pupils are discouraged from over-reliance on speech-reading as this is seen as limiting their use of audition. However, it would appear that in the UK most of those adopting an auditory-oral approach do give some importance to lip-reading and access through the written form. Many proponents of oral-aural approaches recognise that there is likely to be some delay in the acquisition of English (cf Lynas, 1994, p.26).

English and BSL (Bilingual Approach)

Some pupils may be given access to the curriculum via both English and BSL. This is the case in several special schools and in some mainstream settings. In bilingual special schools, typical practice will be for the teacher and pupils to use BSL as the medium of communication within the classroom, while also using written English resources such as printed texts, subtitled videos and interactive computer resources. English is treated as an additional language and there is usually explicit teaching of English. The extent to which audition and spoken language (as opposed to literacy skills) are given focus varies, but most proponents of bilingualism argue that spoken language should be treated as secondary to literacy (see Johnson, Liddell and Erting, 1989).

In a bilingual service, where children may be placed in a range of educational settings, the teaching will often be carried out in English by a hearing teacher, but this will be interpreted into BSL by a teacher of the deaf, an interpreter or a communication support worker (CSW).

Deaf people usually play an increased role in bilingual settings. Bilingual schools and services try to make use of Deaf teachers of the deaf, although there are very few qualified Deaf teachers of the deaf. Deaf people may also be used as 'Deaf instructors', supporting teachers and families, as well as the pupil, or as classroom assistants. In residential special schools it has also been traditional to employ some Deaf care staff

English in Spoken, Written and Gestural Modalities/ Total Communication

Some pupils may be given access to the curriculum via spoken English, written English and English expressed gesturally, ie using SSE or SE (see above). Some schools offer these forms within what is called a Total Communication (TC) policy. TC approaches began to be used within the UK in the 1970s as a response to what was seen by some as the failure of the predominant approach of oralism. The underlying *raison d'être* of the approach was that teachers and parents should make use of all possible means to ensure that communication with deaf children worked. Thus in some versions of TC, the sign language of the adult community, in this case BSL, would be seen as acceptable, alongside English in its various forms. However, the most common interpretation of TC involves the use of what in America is termed 'Sim-Com', ie Simultaneous Communication - the use of spoken English and signing simultaneously. The signing would either be SSE, where the individual would use some BSL signs along with the spoken form of English or Signed English, where the aim would be to make the full grammar of English available visually (see above).

As practised in Scotland and the UK, this approach usually involves the teacher of the deaf using SSE as the medium of communication within the classroom, while also using written English resources such as texts, subtitled videos, interactive computer resources etc. The extent to which vocalisation is expected in all communication varies from school to school. Pupils may use a mixture of SSE and BSL: SSE may be more common (and even expected) when communicating directly with the teacher, but BSL is likely to be used when pupils communicate with one other.

In mainstream classrooms, the class will usually be taken by a hearing teacher using English, while the teacher of the deaf (or a support worker) provides a re-presentation of the information in SSE. In such cases, the teacher of the deaf would normally not use vocalisation, but would use ongoing lip-pattern. Again the extent to which pupils will use vocalisation themselves and the contexts in which they will use BSL, rather than SSE will vary from school to school.

Further Comments

There may be different emphases given within each of these approaches. Traditionally, those who used an English only approach were known as 'oralists' and their philosophy as 'oralism'. However, nowadays the proponents of this approach give greater explicit emphasis to the importance of the deaf pupil exploiting aural

resources, ie making the best possible use of any residual hearing. This change of emphasis has coincided with improvements in hearing aids and an increase in the number of children being given cochlear implants. It should be noted, however, that currently relatively few Scottish deaf children have access to the new generation of digital hearing aids.

One of the criticisms of early versions of oralism was that in practice, teachers emphasised speech and pronunciation, rather than the development of language *per se*. In the middle period of the twentieth century, the emphasis was on structured oralism with proponents focusing on the structure of spoken English. In contrast, current oral/aural approaches stress the importance of 'natural interaction'.

A common thread, within both older and newer auditory-oral approaches is the explicit rejection of the use of signing. The organisation Deaf Education through Teaching and Learning (DELTA), for example, explicitly recommends that signing is not used. Those espousing the oral/aural approach regard it as essential that the deaf child acquires spoken language first. Signing is regarded as inappropriate. A main reason for this is that proponents believe that introducing the deaf child to signing will minimise the child's motivation to use residual hearing and will lead to an over-reliance on sign. Some proponents of oral/aural approaches accept that young deaf people may wish to learn to sign, but believe that this can happen later in the young person's life, usually outside of formal schooling or after formal schooling.

For many children who are mainstreamed there is a *de facto* auditory-aural approach. Those involved in the deaf child's education may not espouse a particular philosophy. Rather the pupil is in a mainstream setting where the language of the classroom is spoken English. It is assumed that, given this placement, the deaf young person will be able 'to cope' using English only. In practice, it is widely accepted that deaf pupils will have difficulties with spoken and written English.

Advice to mainstream teachers typically revolves around taking account of the deaf pupil's difficulties. Brian Fraser, for example, in a book aimed at teachers within mainstream settings comments:

"... we can see that the hearing-impaired child with possible, indeed probable, language delay or deviance will suffer from disadvantages related to:

- ◆ *the organisation of memory and the assimilation of information – these will affect the deaf child's ability to adapt flexibly to new situations*
- ◆ *the development of shared understandings and difficulties – associated with acceptance, identity and probably self-image and self-concept*
- ◆ *abstract understanding and to possible concreteness of thinking."*

Fraser, 1996, p.10

In detailing the type of support required by deaf pupils, Fraser adds:

"You may find that many deaf children in mainstream classes are still at an early stage of syntactic development and that the sentences that they produce are rather telegraphic or grammatically immature."

"There are many children with hearing losses in mainstream classes who have limited reading ability and who are not able to cope with the materials that are being used by other children."

"It is important to remember that a child who cannot hear clearly has to make a great deal of effort to understand, especially when language and conceptual development may also be retarded."

Fraser, 1996 pp58–61

Similar statements can be found across the range of literature for teachers of the deaf and mainstream teachers. What they imply is that even though the deaf child placed in a mainstream school is often expected to access the curriculum directly through English, such access is not fully effective. While not all educationalists would agree with all of Fraser's comments, there is a general acceptance of the reality of language delay for deaf children (cf Watson, Gregory and Powers, 1999; Powers, Gregory and Thoutenhoofd, 1998). This delay does have an impact on the development of literacy, which in turn has an effect upon access to the curriculum and assessment.

Despite the above, many authorities believe that it is in the best interests of the deaf child to be placed in a mainstream setting and to access both curriculum and assessment via English alone. The interpretation of 'inclusive policies' as involving mainstream provision has led to approximately 90% of deaf children being placed in such settings. While we do not currently have precise figures for the numbers of deaf pupils in mainstream schools in Scotland, accessing education by English alone, there is no doubt that a very high proportion are doing so.

Regrettably it would seem that many deaf pupils continue to have difficulty in accessing the curriculum. This makes the task of ensuring they can have adequate access to assessment even more challenging.

Chapter Seven

Accessing Assessment through BSL

In this chapter, we explore the feasibility of enabling deaf candidates to access assessments through BSL. There are a number of different versions of what this might mean in practice.

Access through BSL for non-language-based subject areas

The main argument in support of allowing assessment via BSL is that this will allow deaf candidates whose first or preferred language is BSL to be assessed directly on subject content, rather than have to filter their knowledge and understanding through an additional language, English, which they cannot access fully. There are particular problems, however, in using one language to assess competence in another: how would we use German to assess competence in French? In fact this idea is not totally rejected here, but it is discussed separately under the heading of 'Assessing Language-Based Subjects through BSL'.

Arguments for the Use of Signing

The following claims have been proffered to argue for the use of BSL in examinations.

- ◆ For some deaf pupils, BSL must be regarded as their preferred language.
- ◆ For some deaf pupils, a sign language is the only type of language which can be fully and directly accessed.
- ◆ For some deaf pupils, English can be seen as an additional language. Such pupils may have limited fluency in English in any of its mediums. The use of English only may obscure the real knowledge and understanding which the pupil has in relation to a particular subject area.

The background to these arguments is presented fully in previous chapters. We have seen that BSL is a highly complex language, well able to deal with a wide range of meanings (Chapter Three). We have also seen that the linguistic experience of deaf children is very varied. However, if a deaf child is given access to a sign language early, then that language can be acquired at the same rate and age as a spoken language (Chapter Six). It is also the case that even where a deaf child is exposed to an English-based form of signing, it is highly likely that the child will adapt that signing to suit the visual-gestural modality (Chapter Five).

If BSL is the only language which the individual can access directly and fully, then it is hard to argue against the use of BSL in assessment. However, counter-arguments have been put forward. These concerns primarily relate to the following issues:

- ◆ BSL does not have a written form.
- ◆ BSL does not appear to have a fully developed standard form.
- ◆ It may be difficult to provide a directly equivalent translation from English to BSL.

Lack of a Written Form

We have already seen that BSL does not have a written form; therefore, the form used in assessments will in some ways be comparable to the spoken form of English. However, as noted in Chapter Three, new technology does allow some of the functions of literacy to be emulated. Literacy allows language to be carried across time and space. Video and digitised movies also allow BSL to be created in one time and space and used in another. They allow a particular sign text (ie a coherent piece of signing) to be viewed in an unaltered form. Thus it is possible to ensure that all deaf candidates are given the same examination sign text, just as it is possible to ensure that all hearing children are given the same written text.

The argument for allowing deaf pupils/students to access assessment in BSL does not in any way undermine the need to make English-based literacy an achievable goal for all deaf pupils. Nevertheless, even when Deaf people do achieve good levels of literacy skills, they may still be disadvantaged if not allowed to access subject area assessments in their own preferred language.

The Emergence of a Standard

The lack of a written form of BSL has probably also had an influence on the process of standardisation within the language. Most linguists agree that for spoken languages, the development of a written form speeds up the process of standardisation. The development of printing is generally recognised as having greatly influenced the emergence of a recognised standard form of English. Yet spoken English continues to exhibit quite considerable variation. This is particularly so with respect to pronunciation, but is also the case with vocabulary and to a lesser extent morphology and syntax. Variation is also linked to functionality: speakers may vary their usage according to the particular demands of the situation. In thinking about standard forms in English, we often find it difficult to separate out our expectations of the written language and the reality of the spoken language. As the work of the Milroys (Milroy and Milroy, 1985) has shown all too well, even the spontaneous speech of educated speakers will be very different from a piece of written prose. We may thus have false expectations of what a standard form of spoken English will be like and it is probable that we extend those false expectations to BSL also.

The processes leading to the emergence of a standardised form within BSL only began to gain momentum in the second half of the twentieth century. The emergence of a standard has been nurtured by the wider use and profile of BSL in a

range of contexts. These include the use of BSL within education, particularly Further and Higher Education; within the media, for example, on regular TV programmes for Deaf people such as *See Hear* and *Sign On* and for key public events (the Queen's Christmas message, the Budget, the funeral of Princess Diana); within a wider range of public contexts (the annual conferences of the major political parties; Trade Union conferences and meetings; public campaigns (Clause 28, Gay rights) and within national and international events relating to the Deaf community (conferences of the major d/Deaf organisations; linguistic and educational conferences; major Deaf cultural events - the Deaf 'Oscars', the Deaf Way). The fact that BSL has not been the primary language within the education of most deaf children has inevitably had a negative effect on both the elaboration of function required within a standard and on the emergence of that standard itself. It has also meant that the natural evolution of standardised technical specialist language has been slowed down. However, it is worth noting that where specialist areas have been incorporated into education, technical language has also developed. Research into the nature of sign language has been carried out since the 1970s and incorporated into University programmes since the late 1970s. There are now widely accepted, one might say, 'standard' signs for such meanings as 'phonology', 'morphology', 'syntax', 'classifier', 'iconicity' and so on. These forms have emerged naturally, as Deaf people themselves have become involved in the study of their own and other sign languages. There is little doubt that as BSL becomes more integrated into the educational system at all levels, the development of specialist technical language for particular subject areas will increase. It should be stressed that the lack of accepted standardised forms in certain areas does not mean that Deaf people are unable to discuss specialist areas in their own language. They are well able to do so, particularly by exploiting the resources of the productive lexicon. The illustrations later in this chapter relating to Biology demonstrate this in action. In relation to assessment, the question is: can we rely on BSL to convey the same meanings within specialist subject areas to all candidates during a period when standardised forms are still emerging? The claim made here is that this will be possible, given appropriate preparation. What this involves is spelled out further at the end of this chapter and summarised in Chapter Ten.

Some teachers are concerned at what they see as major differences in usage amongst Deaf people from different geographical locations. However, these differences are probably exaggerated. English geographically-based dialects remain strong, despite several hundred years of 'Standard English' and the impact of the English writing system. Yet English speakers are well able to accommodate to one another. There are differences between local BSL dialects, even within Scotland, just as there are differences between the English of Aberdonians, Glaswegians and the people of Fife. Part of the task of education is to raise awareness of these differences, but also place them in context. If BSL becomes a subject within the school curriculum, then the study of BSL variation will be an appropriate part of that subject - leading to greater understanding and tolerance. Currently, the extent of

geographical variation does not prevent Deaf viewers from accessing BSL aimed at a UK, rather than a local, audience. Deaf television programmes make use of BSL which is for the most part comprehensible to the majority, if not all, Deaf viewers. Some Deaf people may not like the fact that one vocabulary item is chosen over another. Some southern English Deaf people see the BSL used on television as having been overly influenced by Scottish varieties of BSL, especially as the majority of the early presenters were from Scotland. However, Scottish signers also complain about the influence of English-based BSL. English speakers from the North of England and Scotland may similarly regret the fact that the form of English pronunciation given status as 'standard', ie Received Pronunciation (RP), is based on a variety of English used in the South East of England. Given the issues of identity and culture which are woven into our perceptions of language variation, such issues relating to both BSL and English will always stimulate controversy. However, the key point for the use of BSL within the curriculum and assessment is that Deaf people are able to accommodate difference and are well able to comprehend the standardised signing emerging within the media. Using BSL within assessments will, of course, itself contribute to the process of standardisation.

The choice of forms within a prepared BSL subject specific examination would need careful thought- just as the choice of written English needs such thought and preparation. In those few semantic areas where major differences are known to exist, such as numbers and colour terms, decisions as to which set to use should be made well in advance, with candidates and teachers being informed of the choice. This will allow pupils to be alert to differences between their own usage and that in the examination questions.

Translational Equivalence between English and BSL

Those not involved in translation and interpreting often expect that a 'good' translation will be a literal 'word for word' translation. Those involved in the field usually recognise that such a translation is usually both impossible and inappropriate. This does not mean that interpreters cannot express the same propositional, and just as importantly, pragmatic content in two languages. Rather the manner in which this is done will vary from language to language. As Culler comments:

"Each language articulates or organises the world differently. Languages do not simply name existing categories, they articulate their own."

Culler, 1976: 21-2

The chapter on BSL has shown that visual information plays a much greater role in how BSL 'organises the world' than it does within the English. This does not make translation impossible: it does mean that we cannot expect direct equivalence at every linguistic level. Lack of direct equivalence is not a problem specific to BSL and

English: Mona Baker's book *In Other Words: A Coursebook on Translation* (Baker, 1992) is an example of a practical guide to dealing with such non-equivalence for translators and interpreters exploiting many different languages.

A few examples from Baker's account will illustrate the type of problem. Baker points out, for example, that in Chinese, and other oriental languages, there is no lexical equivalent to the word 'exotic': the word tends to be used by Westerners to refer to unusual, interesting things which come from a distant country, such as China. Within Chinese the English phrase 'this exotic lily flower' may be translated as 'this strange, unique lily flower'. Similarly, the concept 'affadavit' is not lexicalised in Arabic: instead the resulting translation is spelled out as 'a written communication supported by an oath'. Baker also recognises that the demands of translation go far beyond the problems of lexical equivalence:

"It is difficult to find a notional category which is uniformly expressed in all languages. Even categories such as time and number, which many of us take as reflecting basic aspects of experience, are only optionally included in some Asian languages such as Chinese and Vietnamese. On the other hand, in translating from English or French into an American Indian language such as Yana or Navaho, one would have to add grammatical categories which in many other languages would hardly ever be expressed even by lexical means. These languages, for instance, have a category of 'shape' which means that an object must be classified according to whether it is long, round, or sheet-like... In translating from English or French into... Yana or Navaho, one would have to add information concerning the shape of any objects mentioned in the text."

Baker. 1992, p. 86

It will not be surprising to learn that sign languages have been compared to these American Indian languages. What Baker is stressing is that we tend to assume that the grammatical categories and distinctions made in our own first language are the obvious ones. This is particularly the case if the only other languages we know exploit similar categories. It so happens that BSL does not exploit the grammatical category of tense - time is not marked within the verb form - but it makes much greater use than English of the grammatical category of 'aspect' (ie relating to such temporal notions as duration and completion).

Given the different ways in which languages are organised in terms of both grammar and lexis it is inappropriate to expect a literal translation in the accepted sense. However, a good interpreter/translator can still work effectively from one language to another.

Lexical equivalence: an example

The Collins English Dictionary gives fourteen different sub entries for the English word 'handle'. It is used as noun and a verb and is used in what might be called literal, metaphorical and idiomatic expressions. If we were to seek word for word translational equivalence then we might look for a sign in BSL that is used for exactly the same set of functions. However, to use the same sign for all such meanings would go against the internal organisational principles of BSL. The first sub entry in the Collins English Dictionary reads:

"the part of a utensil, drawer etc designed to be held in order to move, use, or pick up the object".

Again we might expect that at least BSL would use a single form for the above meaning. However, it does not. As with the American Indian languages, shape is incorporated into the lexical structure of the language. The sign used will depend upon the type of handle used, for example the handle of a mug, a teacup handle, a round knob or a lever.

The BSL translation of the verb "handle" would also be different in the following examples:

- ◆ "He handled the meeting very well."
- ◆ "The new Jaguar handles really well."
- ◆ "The Peugeot is difficult to handle on bends."
- ◆ "She flew off the handle."
- ◆ "I can handle her."

In 1) the sign for 'handle' is sometimes also used to mean 'administrate'. 'control' or 'supervise': interestingly it has been suggested that the sign derives from holding the reins of a horse and the same image is sometimes used in English to mean taking on responsibility as in "She took over the reins of the department". In 2) and 3) the sign is based on the holding of the steering wheel: the ease or difficulty involved in handling the car is shown primarily by the non-manual features, but also by the relative tenseness of the hands. In 4), the sign makes use of the chest area as a location, a location often associated with emotions; the handshape involves the fingers bent and held tensely - again often used to express intense emotions; and the movement of the hands up and separating away from the chest is probably based on a metaphor of removal - ie removing the anger. In the last example, the literal translation of the signing is EASY CAN. When signed with appropriate non-manual features this is equivalent to the meaning of "handle" in the 5).

**HANDLE A MEETING****HANDLE (EASY CAN)****CAR- DIFFICULT TO HANDLE****CAR- EASY TO HANDLE**

There are thousands of other examples which could be used to demonstrate that there is not a one-to-one relation between English and BSL lexical items. We can see that here BSL is in a sense more specific than English. Speakers of English do not see it as at all odd that the same word 'handle' is used in the above examples. Yet it would be extremely odd in BSL if we were to use the sign glossed as HANDLE (KNOB) in the context of handling a meeting.

Evoked meaning

One of the translation difficulties noted by Baker is that of fully capturing what she calls the 'evoked' meaning, not just the propositional' meaning of a lexical item. She gives the following example:

"Source text in English: *You can even dine 'alfresco' in the summer on our open air terrace.*

Target Text (German): *Im Sommer können Sie auch auf der Terrasse im Freien sitzen und essen.*

Back-Translation: *In the summer you can also sit and eat on the terrace in the open.'*

Baker, 1992, p.39

'Alfresco' is a loan-word in English, borrowed in the eighteenth century from the Italian meaning 'in the cool'. However, the term now evokes rather more than this, which is why restaurants and hotels use the term 'dining alfresco' rather than simply 'dining outside'.

Evoked meaning is particularly important in BSL. Often a sign or sign phrase exploits a visual image which conjures up a whole set of associations or connotations. The use of cochlear implants for young deaf children remains a very controversial matter for Deaf people. Many adult Deaf people, ie members of the Deaf community, are against the practice. The sign COCHLEAR IMPLANT exploits typical word formation processes in BSL: it uses a handshape based on round or spherical objects and this hand performs a short action behind the ear, ie literally 'placing a round object behind the ear'. The sign can be produced neutrally as in the illustration below.



COCHLEAR IMPLANT

However, the following two illustrations are taken from an account of cochlear implants in which the signer is commenting critically on the number of children being given implants.



**IMPLANT INDISCRIMINATELY
(PART ONE)**



**IMPLANT INDISCRIMINATELY
(PART TWO)**

Here the signer uses the non-dominant hand as what is known as a person classifier (index finger extended from a closed fist) while the dominant hand takes on the round object handshape of the COCHLEAR IMPLANT sign. Both hands move sideways. What the signer does is to use the resources of the productive lexicon to create a verb form meaning IMPLANT A PERSON. She then adds one of the possible plural markers and a set of non-manual features which have an adverbial function expressed here by the English word 'indiscriminately'. This is a particularly strong image in BSL: it evokes a conveyor belt approach to implantation. The fact that the way of signing also evokes the physicality of the act- although it does not focus on the surgical aspects - also strengthens the power of the image. To translate the above as "Many people (children) are being implanted" would fail to capture the evoked meaning. "Children are being implanted indiscriminately" is closer, but it is still difficult to capture the connotative meaning fully (see further in Chapter Ten under 'Recommendations').

All of these examples show that the notion of a literal word-for-word translation between languages is inappropriate. They also demonstrate that BSL/English translation is demanding. However, we know that that is the case also for translation between spoken languages. It is essential that people who are fully competent in both languages and who have developed the skill of translation to carry out such work.

Does BSL Provide an Unfair Advantage?

Probably the key concern that emerges in any discussion of presenting examinations and assessments in BSL is the notion that the use of BSL may provide an unfair advantage to the deaf child. If we imagine a pupil who only speaks French being allowed to sit the Standard Grade History paper in French, would we expect that

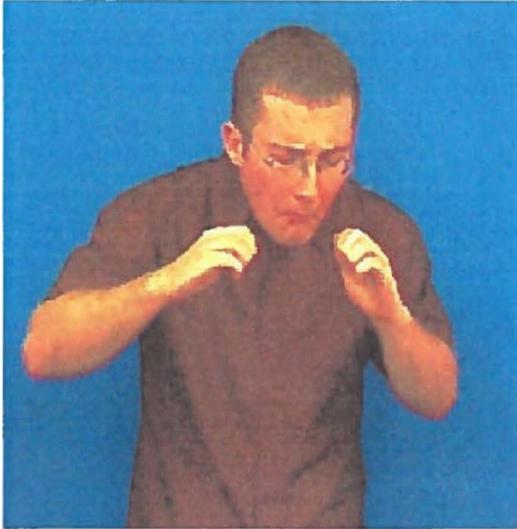
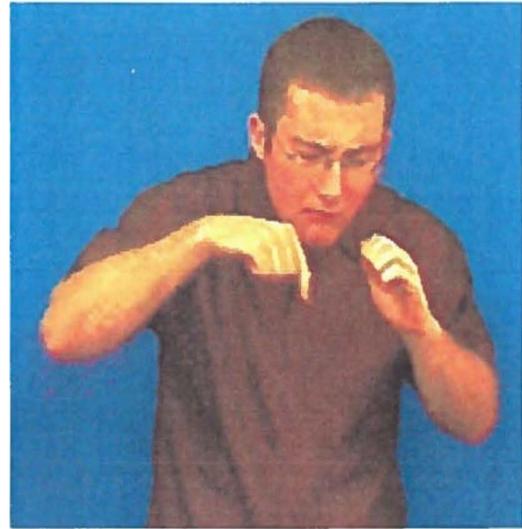
pupil to have an unfair advantage over other pupils? This seems unlikely. We can envisage an adequate translation of the examination questions into French and we can envisage an adequate translation of the pupil's French back into English. So why should there be concerns in relation to BSL?

The answer seems to lie in concerns about what was described in Chapter Three as 'Visual Encoding' in BSL. There is little doubt that much of BSL is visually motivated and that the language has a range of mechanisms to encode visual meaning. We can gain a clearer understanding of what this means for assessment in BSL by looking closely at some examples which derive from BSL versions of curriculum material based on the Standard Grade Biology syllabus.

Signing about Biology

As a general technique, descriptive signing makes use of a feature which we can describe as 'visual perspective'. In fact 'visual aspect' may be a more appropriate term since it seems to parallel so closely what is known as 'temporal aspect' in spoken languages (see Chapter Three, p.11). Comrie (1976) describes temporal aspects as "different ways of viewing the internal temporal constituency of a situation." (Comrie, 1976, p.3). An action located at a particular point in time (marked in English by the grammatical category of tense) may be viewed as about to start, being of short duration, being of long duration, being complete, happening again and again and so on. Visual aspect may be seen as allowing us to view the same action or object from different positions, from different angles. It is useful to keep in mind the analogy of film direction. A key element of the role of director is to decide on the type of camera shot, the particular angle, the degree of close-up and so on. The BSL signer makes comparable decisions all the time in signing. S/he may not be consciously aware of this because visual aspect or perspective is such an integral part of the language. In the same way, users of English do not stop to consider which type of temporal perspective to use. Typically they make such choices automatically, although the writer or poet may make deliberate, thought through choices to convey a particular effect.

Changes in visual perspective can also be compared to the strategies used by illustrators when attempting to show the intricacies of an object. Thus biological illustrators use such techniques as presenting cross sections, or vertical sections of an object, or showing one component greatly magnified. The illustrations glossed below as PEER IN 1 and PEER IN 2 are taken from a presentation on the parts of a flower. Having provided a distant focus look at the overall flower, the signer then gives us a close up of the flower head. The hands in PEER IN 1 appear to be pulling the top of the flower apart so that we can look inside. In PEER IN 2, the non-dominant hand retains the handshape used in PEER IN 1, allowing the signer to maintain the same visual perspective, while pointing to a specific part of the flower with the dominant hand.

**PEER IN 1****PEER IN 2**

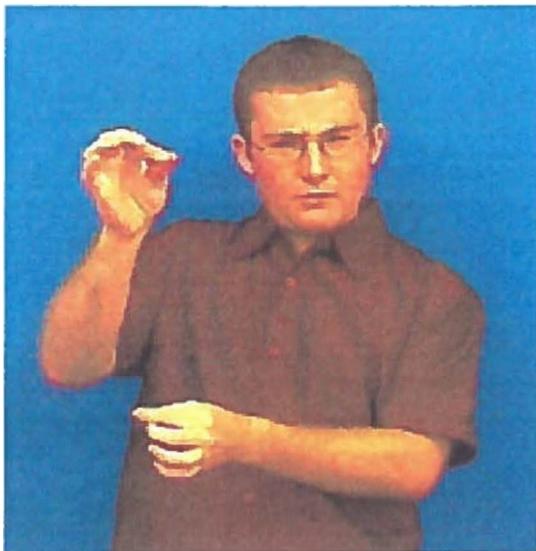
Signers make considerable use of this type of technique. The signer may even, as it were, lift an organ outside of its normal location. Thus specific parts of the body may be signed in a location close to their physical locations, but then re-created within the signing space. The non-dominant hand often 'becomes' the object under discussion. Thus the bladder may be located appropriately, but then re-presented in the neutral space area in front of the signer's body. If the signer wishes to discuss the development of a tumour on the bladder, for example, the dominant hand will present this information in relation to the re-presented object. Thus in TUMOUR ON THE BLADDER, the non-dominant hand represents the bladder, while the dominant hand indicates the large growth. Simultaneously, the non-manual features stress the size of the tumour. In the signing glossed as TUMOUR TERRIBLE, the signer is making a comment with the dominant hand - and non-manual features - while again retaining the representation of the bladder with the non-dominant hand. This approach, which can be used for the brain, the heart, the eye, the ear, the parts of a flower etc., also allows us to view the same object in different ways: from above, from one side and so on.

**BLADDER (BROUGHT UP HIGH)****TUMOUR ON THE BLADDER****(TUMOUR) TERRIBLE**

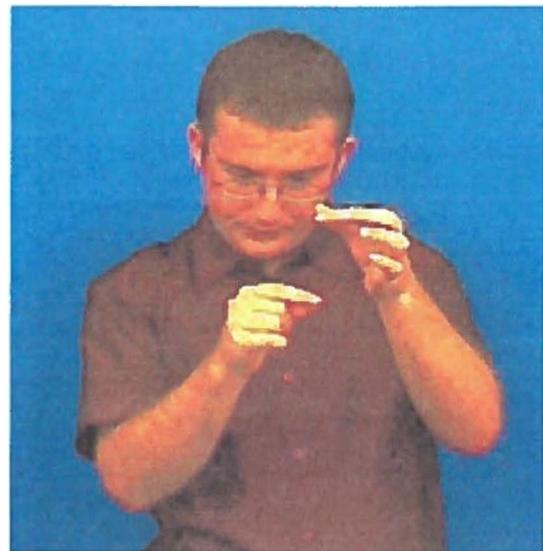
The following examples derive from BSL versions the section of the Standard Grade Biology syllabus relating to flowers and fruits. There is little doubt that in all of these examples the signer is both using the productive morphology available to create appropriate forms and encoding visual information automatically. Interestingly such information may be encoded within the English forms in terms of the origin of the signs, although these origins are obscured for users of English not familiar with Latin or Greek. "Filament" for example derives from the Latin word for 'thread'; "stamen" is also from Latin: literally 'warp in an upright loom, thread'; "anther" is based simply on the Greek for 'flower'. Many technical terms in English, deriving from Latin or Greek and are based on physical characteristics. It may be the case that a literal translation of the origins of English loan words will be quite close to the physical basis of technical terms in BSL. Thus the fear of such technical terms, what seems like their inherent difficulty, can be removed for/Deaf learners by letting them in on the

relationships between the origins of the English terms and the physical or visually-based BSL forms.

Let us look at the way the signer signs STEM and FILAMENT. These are parts of the flower, different in size and function, but sharing certain properties. Both are essentially tubes. The signs used for these meanings are created through the use of two classifier handshapes, used for cylindrical objects. The signer shows the size difference in terms of both the length of the separating action - shorter in the case of filament- as well as the use of a non-manual marker (lip-rounding and eye-narrowing) stressing smallness. Often hearing learners of BSL or those who comment on the language without knowing it well, miss the significance of the non-manual features.



STEM



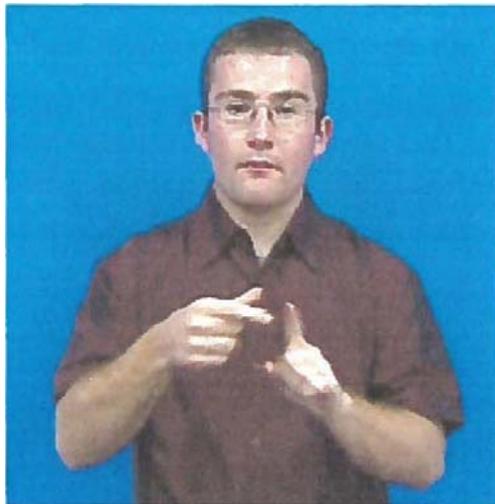
FILAMENT

The signer is also likely to show the relationship between this part of the flower, and other parts, such as the flower head. If these forms were produced outside of any context, then they would be understood as 'tube-like object', 'relatively small tube-like object'. The signer might indeed also use comparable forms in completely different contexts to refer to tubes. Should we regard this as problematic? The answer is 'No, so long as appropriate context is provided'. Thus in a General Science assessment, where many different kinds of questions were being asked, it would not be acceptable to have a question:

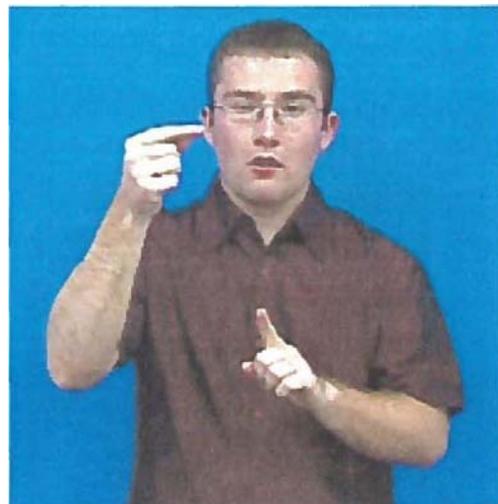
What is the function of 'TUBE-LIKE STRUCTURE'?

In English, we are used to having an inflectional marker for plurality. In BSL, there are a number of different ways to show plurality, including fairly limited use of a bound plural morpheme. However, the plural form of physical objects will often link

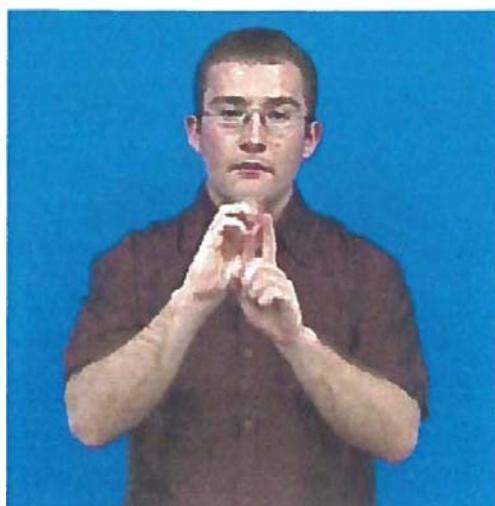
directly to the differences between the physical appearance of an individual form and a multiple form. We can see this in the individual sign PETAL versus the plural form PETALS.



PETAL (PART ONE)



PETAL (PART TWO)

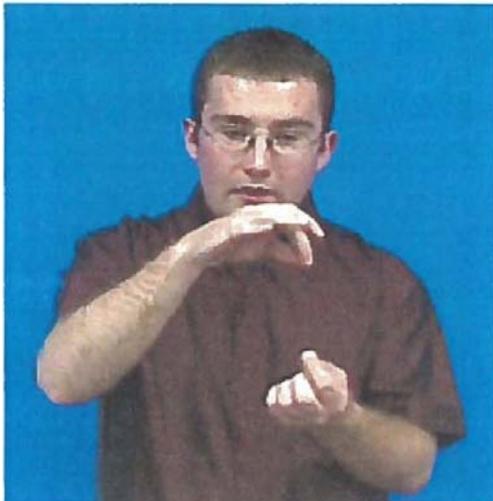


PETALS (PART ONE)



PETALS (PART TWO)

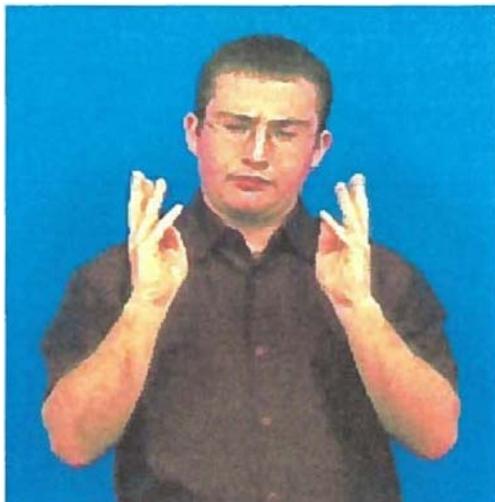
Similarly the signer uses different forms, to show the individual stamen and the group of stamens within a flower. At one point the signer shows the group of stamens as a collection of pin-like objects by choosing the handling classifier handshape (thumb and index finger closed in a circle, other fingers extended) used for tiny or delicate objects such as pins. At another point, the signer uses the classifier handshape in which all fingers are extended and spread for both hands, which move to show the stamens grouped in a circle. The basic size and shape classifier form here means 'many thin things' and has a wide range of uses in the language.



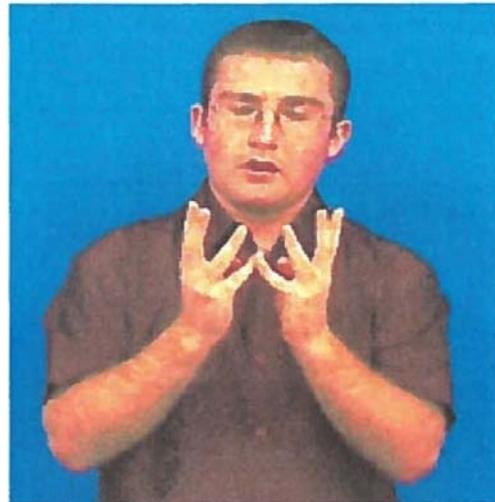
STAMENS (PIN LIKE OBJECTS)



STAMENS (GROUP OF THIN THINGS) (PART ONE)

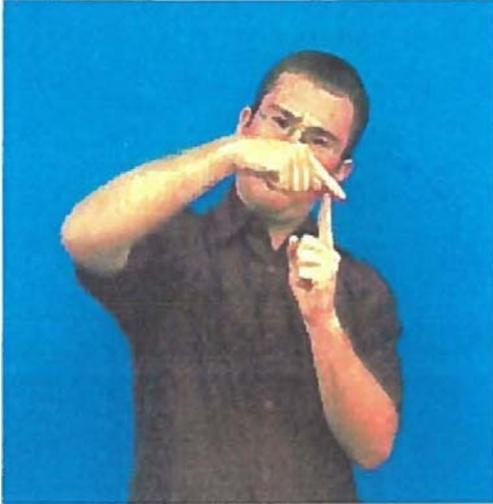
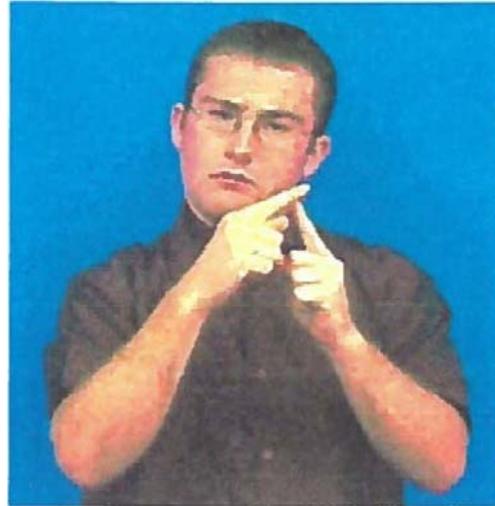


STAMENS (GROUP OF THIN THINGS) (PART TWO)

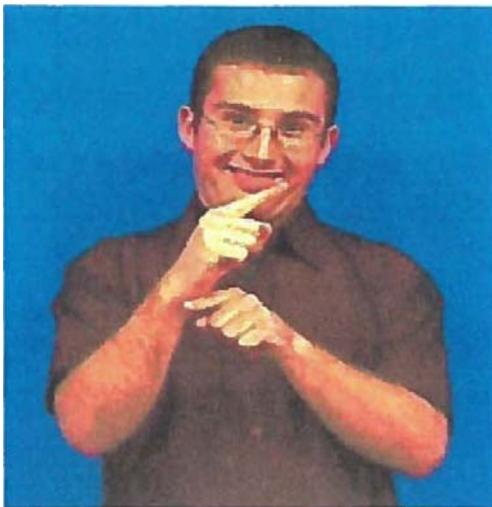


STAMENS (GROUP OF THIN THINGS) (PART THREE)

The signer uses the non-dominant extended finger to represent the filament section of the stamen and the dominant extended index finger to show the anther. The sign ANTHER shows the whole stamen - filament and anther - but with a nodding action of the right hand, showing that the focus is on this single tiny component.

**ANTHER (PART ONE)****ANTHER (PART TWO)**

At another point, the signer focuses on the individual stamen shaking from side to side - the non-manual features suggesting that the tiny structure is unwittingly blown by the wind.

**STAMEN BLOWING FROM SIDE TO SIDE**

The signer also uses a range of different signs to represent the sepals of the flower. The signs used incorporate different types of information: **SEPAL (SINGULAR)** shows the shape of an individual sepal; **SEPALS/CALYX** shows the sepals when they are forming a protective shield around the petals; **SEPALS** shows the overall shape of the sepals when they have opened out from the closed bud; and **SEPALS DROP** shows the sepals when they have fully opened up and are hanging loosely at the base of the flower head. Interestingly, English actually has a separate technical term for the sepals when they are acting as a protection or covering for the inner parts of the flower. This is based on the Greek word for 'husk'. However, there does

not seem to be a commonly used English word for the sepals once they have dropped position. Thus the same physical object may be given more than one name. In BSL, the same physical object may be given more than one sign depending upon how it is being viewed.



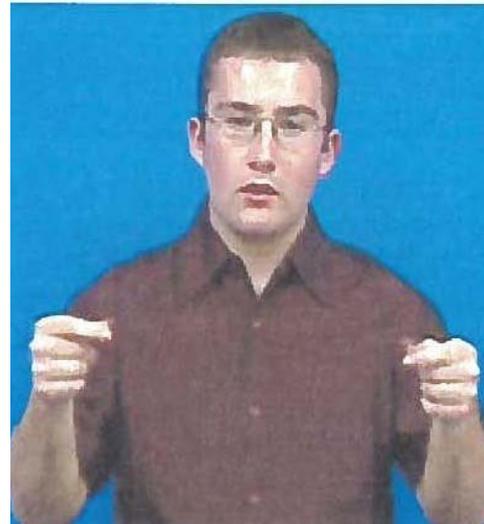
SEPAL (SINGULAR) PART ONE



SEPAL (SINGULAR) PART TWO



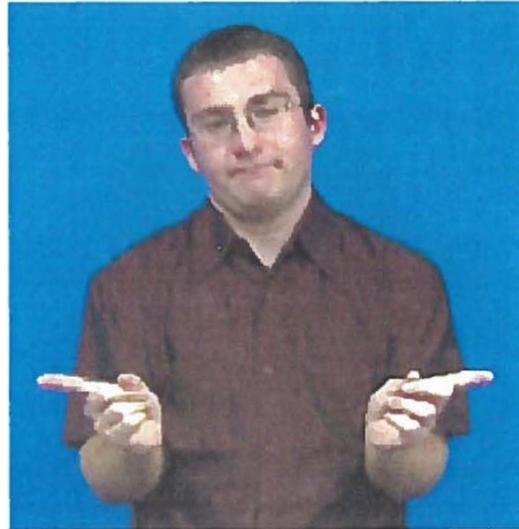
SEPAL (PLURAL) PART ONE



SEPAL (PLURAL) PART TWO



SEPAL/CALYX



SEPAL/DROP

Implications for Assessment

The above examples present only a glimpse of the myriad ways in which signers can exploit the resources of the language to create appropriate signs. These are not artificially created. Rather they arise from exploiting the morphological resources of the language, in much the same way that English users exploit such meaningful elements (morphemes) as 'de-', 'un-', '-ise', '-ate', '-ation' and so on. A key difference is that many of the BSL resources encode visual information.

In examining the implications for assessment, we need to keep in mind that BSL and English work in different ways (cf. the comment from Culler on p.58). We need to recognise that each language needs to be able to function in its own terms. The translator, seeking to present the full meaning of one piece of language in another language, will not offer a literal word for word translation. Rather s/he will use the full grammatical and lexical resources of the language to achieve this goal. Work on signed/spoken language interpreting, and indeed spoken language/spoken language interpreting in courts of law (Brennan and Brown, 1997; Laster and Taylor, 1994 and Berk-Seligson, 1990) demonstrates that while legal practitioners initially seek and expect literal word for word translations, there is now increasing recognition that these are neither possible nor helpful. If Deaf people are to be given equality, both before the law and within educational assessment, then we have to ensure that translations are both as faithful to the source message as possible and work effectively in the target language. The fact that there is often a tension between these two requirements shows just how important it is to ensure that highly skilled language practitioners are involved in carrying out the translations (see further below).

All of the above examples demonstrate that visual encoding is built into the language and therefore we can expect that it will be built into assessment texts also. The major

concern which has been expressed by those arguing against the use of BSL in assessment is that such visual encoding will provide visual clues which will give d/Deaf candidates an unfair advantage. However, in looking through examination papers and assessments it becomes clear that typically this will not be the case.

There is essentially one type of task where a possible advantage might be envisaged: this is in straightforward labelling. If a candidate is shown illustrations of flowers and asked to label the stamen, the anther, the filament, the sepals and the carpel, it is possible that the actual signs will provide the candidate with a visual clue. However, the inherent 'clues' are not as obvious as might first appear. We have already seen that BSL provides us with different ways of viewing the same object: the term SEPALS in English refers to the same set of objects, even though their appearance changes at different stages of the flower's life. However, BSL employs several different forms, linked to these different stages. If the candidate is expected to recognise the same object in its different forms, while the signed version uses only a single form, then we could argue that the d/Deaf candidate is having to do at least as much, if not more, than the hearing candidate. The likelihood that s/he is doing more work is based on the fact that the inherent visuality of the sign might actually hinder understanding.

Similarly, while the sign ANTHER, illustrated earlier, would seem to provide a rather obvious visual clue, ie the small component balancing at an angle on the end of the narrow filament. However, given that the sign shows the whole stamen, and the nodding action alone provides the clue that it is the top part of stamen which is the focus of the sign, the d/Deaf candidate could potentially confuse stamen and anther. Thus it seems that the candidate will only be able to fully grasp the signing, if s/he has already understood the relationships between the different components of the flower. Perhaps hearing people can view the difficulty for themselves by watching a person signing about a particular area of science. The visual clues incorporated in the language will typically not be obvious to someone who does not know the language. The hearing person will not be able to understand the signing. The d/Deaf candidate, who, unlike the hearing person, is able to respond to the visuality, nevertheless needs to be able to relate the signing to the precise phenomenon described. This is rather like a user of English coming across technical terms such as "hepatocellular carcinoma" or "electroencephalograph", recognising some or even all of the component parts, but still not being able to make sense of the term.

There is little evidence that visual encoding gives additional help to the d/Deaf candidate in any other types of assessment task. Indeed as the tasks become more demanding, in terms of the type of thinking required, the less likely it is that visual encoding will be of assistance. If the candidate is asked to relate the different parts of the flower to different functions, then visuality of itself will not provide an answer. A question such as

'What are the functions of the stigma, the style and the ovary?'

will be no easier for the d/Deaf candidate than the hearing candidate. Similarly, the d/Deaf candidate will not have any advantage when discussing processes such as 'photosynthesis', 'sexual' and 'asexual reproduction' and 'osmosis'. In answering such questions, the candidate is, of course, likely to exploit the visual resources of the language. However, like any other candidate, the d/Deaf person will have to demonstrate a critical understanding of the functions and processes. If the candidate is asked to develop an evaluative or critical response, for example, in relation to the effect of GM crops on non-GM crops, then again we can expect that the mere encoding of visual information will not provide an unfair advantage.

It should be clear from all of the above that BSL organises the world in a very different way to English. In particular, it incorporates visual information as a matter of course. In very simple labelling tasks, this encoding might provide a slight advantage to d/Deaf candidates. However, this potential advantage is offset by the possibility that visual encoding may be 'misleading' in some contexts. In the majority of assessments, where candidates are required to move beyond simple labelling to higher order analytic and evaluative tasks, visual encoding provides no advantage. The task of translating between BSL and English, like translation between any two languages, is demanding and needs to be undertaken by experts.

Current Policy within SQA on the Use of BSL in Assessment

What is the current position of the Scottish Qualifications Authority with respect to the use of BSL in assessments?

It is worth noting firstly that SQA currently offers qualifications directly in BSL itself, namely the *National Certificate Modules: Language: British Sign Language 1, 2 and 3*. These are modules which can be taken by d/Deaf or hearing people.

SQA also offers a *Professional Development Award (PDA) Certificate: Tutoring British Sign Language (BSL)*. In the past, Scottish Deaf people wishing to obtain a qualification to teach BSL would have to have attended one of the Universities in England offering such courses, eg the University of Durham or the University of Bristol. Now the PDA Certificate provides an award nationally recognised within Scotland and offered at Centres within Scotland. However, at the time of writing only one course is being offered in Scotland, within Motherwell College.

Although this is not articulated directly within any of the documentation, it seems clear that assessments of modules within the PDA will be undertaken directly in BSL. Students are presented with questions or tasks in BSL and give their responses in BSL. Thus the principle of undertaking assessments directly in BSL is already implicitly accepted by SQA.

In the SQA publication of 1998, *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs, Candidates Whose First Language is Not English* a section is provided on 'Signing in Assessments'. SQA uses the term 'signing': it does not distinguish between BSL and English-based signing systems (see further below). The publication provides the following advice:

"In internally assessed units, where the candidate is simply required to convey knowledge and understanding of a subject, this may be conveyed by signing. However, in a unit where an outcome is concerned with the candidate's speaking or listening skills, an alternative interpretation of the outcome which allows the candidate to sign must be submitted to SQA. If there is any uncertainty, centres should seek advice from the SQA in advance.

In external examinations, the signed interpretation of question papers is not permitted, with the following exceptions:

- ◆ *The instructions given by the invigilator;*
- ◆ *The rubrics of question papers;*
- ◆ *The orally presented questions in Standard Grade Mathematics;*
- ◆ *The transcript of the spoken text of the video in Standard Grade Physical Education."*

SQA, 1998, pp. 8-9

The above extract demonstrates that two years ago SQA simultaneously accepted and rejected the use of signing. Thus it accepted signing for limited purposes, but did not allow any of the written questions within an examination paper to be signed. It is difficult to see why signing would be allowed for the rubric of the question paper, but not the actual questions. If it were assumed that the candidate would **not** be able to access the written language of the rubric fully, why would it conversely be assumed that the candidate would be able to access the written questions?

The issue of allowing candidates to have the questions signed to them has been raised by teachers of deaf children for some time. In 1999, the issue came to the fore more directly when a special case was made for an individual candidate to have a question paper at Standard Grade signed. SQA thereafter decided to form a Review Group, including teachers of deaf children, mainstream teachers and SQA personnel to examine this issue further. In April 2000, SQA accepted the recommendation of the Review Group that candidates should indeed be allowed to have the questions signed. This decision became operational for the Standard Grade examinations of 2000.

This principle has now been extended further to include all examinations at all levels. Thus SQA has now accepted the appropriateness of d/Deaf candidates being able to access question papers via a signed format.

Should d/Deaf candidates have the option of signing responses in all examinations/assessments?

SQA has accepted that d/Deaf candidates should be given the option of having examination and assessment questions signed to them. Presumably the basis of this decision is that d/Deaf candidates should have the option of accessing the assessment process in their preferred language and that written English may not be fully accessible to the d/Deaf candidate. Given that this has been conceded, it is very difficult to argue a case against the use of signing within responses.

We know that producing a form of written English that conforms to hearing norms is even more demanding than reading for d/Deaf people who have not had full access to a language from an early age. Trying to deal with the demands of written English is, therefore, likely to obscure the real knowledge and understanding d/Deaf candidates have of a subject. Therefore, if signing is offered as an option, it should be allowed both in questions and responses.

If the decision is made to allow signing fully within SQA assessments at all levels and in all non-language-based subjects, then specific arrangements need to be made in relation to the signing of the questions and the marking of the responses.

Who should sign the questions?

Arrangements in the 2000 diet of examinations allowed individual teachers of deaf children to sign the questions to them directly. Teachers were given an additional time allowance to allow them to read the question paper before having to sign it to d/Deaf candidates.

One argument, put forward quite strongly by teachers, was that d/Deaf candidates would be disadvantaged if the question papers were signed by someone they did not know and who was not aware of the signing variety used in the candidates' own educational environment. Teachers were concerned about geographical variation and differences in signs used for specialist terminology. In particular, the teachers wished to stress that d/Deaf candidates should be able to access assessment in the same way as they were accessing the curriculum, for example through SSE or SE, as used in a particular school or classroom. This last point is particularly important.

The proposal put here is that, despite such arguments, in the longer term, individual teachers should not present examinations *in situ* to individual pupils. Rather SQA should offer a standardised form of assessment on CD-ROM (or equivalent) which would be made available to each school in the same way as question papers are made available

The main reasons for this proposal are:

- ◆ it will allow the most accurate possible, prepared translations of questions to be used within the examination process;
- ◆ it will allow all d/Deaf candidates to be given exactly the same questions they will all sit the 'same' examination;
- ◆ d/Deaf candidates will not be disadvantaged by the variable levels of teachers' signing;

We have already seen above that translation is a demanding task. The examination process can have a major impact on the life opportunities of individuals. Therefore, we should ensure that the highest possible standards are used when developing sign translations for use in examinations.

The current arrangements do not involve any monitoring of the quality of signing used within individual schools. A standard format would allow quality assurance at the time of preparation. The responsibility of the examination Centres would be to ensure that the appropriate technology is in place and properly functioning.

There is, at present, no requirement that teachers of deaf children should have signing skills above CACDP Level One. (The Council for the Advancement of Communication with Deaf People, CACDP, has offered a three stage pattern of qualification, with Level One being the lowest level. More recently, SQA has introduced a three stage level of qualification and it is likely that future requirements will be linked to the SQA qualifications.) Level One requires a very basic level of competence in BSL. Some teachers of deaf children do, of course, have higher levels of qualification with a number having achieved CACDP Level Three: this represents a high level of competence. There is variability across authorities, with some schools and services requiring teachers who work with signing children to achieve the higher level qualifications, whilst others making no such demands. Very few teachers have undertaken training in BSL/English translation and interpreting: skills which would be required to ensure that the best possible version of an examination paper is offered to candidates

The proposal to remove the task of presenting examination questions from teachers *in situ* would protect both the d/Deaf candidates themselves and teachers. Although it has not yet happened, it is possible to imagine a d/Deaf candidate bringing a case against an individual teacher for failing to provide full access to the examination process. (Such a case might be taken under the auspices of the *Human Rights Act 1998*, with respect to *Article Two - Right to Education* - of the *First Protocol*. If the proposed legislation extending elements of the *Disability Discrimination Act* to education is enacted, then there is little doubt that individuals would be able to argue

that allowing a teacher with Stage One skills to present signed questions to a candidate would be discriminatory.)

Initially, there may be some opposition to this proposal from teachers of deaf children. Teachers rightly want their pupils to have the best possible opportunities and may believe that, because they know their pupils so well, they can best 'get the message across' to their own pupils. However, it is suggested here that this approach may underestimate the sign linguistic skills of their pupils. Nevertheless, it is recognised that introducing standard forms of assessment will need some lead-in time. It is therefore proposed that assessments be offered in standardised BSL formats by the examination diet of 2003.

What kind of Signing?

As we have already seen, the SQA 1998 publication on *Special Arrangements* uses the rather vague term 'signing' in relation to special arrangements for d/Deaf candidates. However, it is argued here that we need to be rather more specific. It is proposed that:

- ◆ external examinations and standard assessment formats be made available to d/Deaf candidates either in BSL on CD-ROM (or equivalent) and/ or in written English;
- ◆ d/Deaf candidates will be able to use any form of signing in their responses.

These two proposals appear to be contradictory. However, they recognise that BSL offers the means of providing a full, 'rich' translation of the English questions, which would be accessible to all d/Deaf candidates. They also recognise that d/Deaf candidates will arrive at the examination process with a very varied background in terms of linguistic access. Some candidates may have used BSL since early childhood; some may have fairly limited exposure to BSL; some may have been taught only through Signed English, whilst themselves using a more BSL-like form of signing; some may always be required to vocalise while signing and so on. Thus their actual sign production may vary considerably. d/Deaf candidates should not be penalised for this.

It might seem that using BSL within the examination format will automatically penalise some d/Deaf candidates. However, there is research evidence, as well as anecdotal evidence, that this is unlikely to be the case. Anecdotally, probably many teachers of deaf children have noted the ability of deaf children, even those exposed only to a Signed English system, to communicate easily with Deaf visitors who use BSL. On many occasions, teachers have commented upon the 'animated' nature of such encounters between Deaf BSL users and deaf children primarily exposed to SE or SSE. These anecdotal observations are supported by the kind of evidence quoted in Chapter Five showing that deaf children adapt towards the visual-gestural modality.

It is also worth noting what happens when deaf pupils leave school. Very quickly they will find themselves in situations where BSL/English interpreters are used. Adult Deaf people with the type of varied linguistic experience mentioned above, nevertheless access information through BSL. BSL has evolved over centuries. It exploits the visual-gestural modality to the full, resulting in a highly efficient language which deaf children can tune into very easily. In contrast, adult hearing teachers find the 'tuning in' process rather more difficult.

It might be argued that CD-ROM versions of examinations in Signed English and/or Sign Supported English should also be available. The rationale here is that if pupils are exposed to such forms of signing every day, then it is unfair to expose them to a form of signing, ie BSL, with which they are less familiar. There are several problems with this. Firstly, there is no single accepted form of Signed English in use across Scotland. It would, therefore, be difficult to agree a form of Signed English to be used. Secondly, Sign Supported English is also highly varied. As explained in Chapter Five, SSE involves using individual signs from BSL to support English mouth pattern or vocalisation. Different users will use different 'supportive' signs on different occasions. Some teachers aim to incorporate grammatical features of BSL into SSE in order to make it more accessible; others reject the use of BSL elements, particularly non-manual features. Many such teachers would prefer to use BSL itself, but feel that their skills are not adequate. These teachers tend to use a form of SSE strongly influenced by BSL. Again it would be difficult to arrive at a form of SSE which would be acceptable to all concerned.

BSL offers d/Deaf candidates the possibility of full access. More curricular materials in BSL are now becoming available and teachers are using more BSL interpreted resources within the classroom. Within the three year time-scale before the proposed introduction of the new format, both teachers and candidates will have the opportunity to undertake appropriate preparation.

Accessing the Signed Responses of the Candidates

Markers will need to be able to access the examination responses of d/Deaf candidates. Unfortunately, there are currently very few Deaf teachers who could act as markers, working directly from the signed texts. Therefore, it will be necessary for the signed texts to be translated into English. This should be carried out by a small team of experts whose skills and qualifications have been monitored by SQA. The markers would be given a full written transcript of the responses. Any problems with respect to the translation should be noted and drawn to the attention of markers.

Signing within Communication and Language Assessments

For a number of years, SQA has offered d/Deaf candidates the option of using 'Alternative Communication' for Standard Grade English. The principle underlying this approach was that the key communication outcomes could be achieved through another medium and that d/Deaf candidates should not be denied access to such a

key assessment. The new system of National Qualifications, developed under the 'Higher Still' reforms, recognises five Core Skills: Communication, Numeracy, Problem Solving, Information Technology and Working with Others. These core skills are either embedded in a unit or course or offered as dedicated Core Skills units. SQA has already agreed in principle that the use of 'Signed Communication' is an acceptable substitution for oral communication within the core skills profile. Also candidates will be allowed to use signing in the Oral Communication units in English and Communication courses/clusters. The details of these new arrangements have not as yet been spelled out within new regulations.

Communication (English) and Communication (BSL)

While recognising that the SQA decisions are positive for d/Deaf candidates, it is proposed here that Communication units should be offered separately in English and BSL. Indeed it may also be appropriate to offer such units in other languages, although this is outside the scope of this discussion. The core skills units offered under the heading of Communication include outcomes relating to both productive and receptive skills in both spoken and written English. If separate units in BSL and English were offered, there could nevertheless be some comparability of outcome, for example:

Access 3

- ◆ Produce and respond to simple (BSL) communication.
- ◆ Produce and respond to simple (English) communication.

Intermediate 1

- ◆ Produce and respond to simple but detailed (BSL) communication.
- ◆ Produce and respond to simple but detailed (English) communication.

Higher

- ◆ Produce and respond to (BSL) communication on a complex topic.
- ◆ Produce and respond to (English) communication on a complex topic.

This set of options would seem to be already available according to the new SQA policy. However, it might also be possible to extend the types of outcome. We have seen in Chapter Three that there is an increasing recognition of the notion of sign literacy, made possible through new technology. Thus signed texts can be retained over time. It is quite feasible to imagine a d/Deaf candidate responding to a lecture by a Deaf presenter; a television debate on controversial issues; an evaluation of a political campaign - all examples from television programmes aimed at d/Deaf people. This would not mean that the candidate would only be able to deal with d/Deaf-related topics, although these would be legitimate items to include.

Similarly, we might expect a d/Deaf candidate to produce 'well-structured, prepared signing on a complex topic'. This is close to Outcome 2 of the current Higher:

- ◆ Produce well-written communication on a complex topic.

The performance criteria for such an outcome might look something like this:

- a) The techniques used are appropriate to the signer's purpose, are used consistently and effectively and are adapted as necessary for the intended audience.
- b) All essential ideas/information and supporting detail contributing to the main purpose of the communication are expressed accurately and coherently.
- c) Structure is appropriate to purpose and audience and the signer arranges and links major and minor points in ways which assist the clarity and impact of the signing.
- d) The signing is grammatical, showing accuracy not only at clause and sentence level, but also at text level, eg spatial location, referencing, role shift and verb agreement are all used in a coherent manner. The sign register chosen suits the purpose of the text and its intended audience.

Such an account recognises the difference between 'live' BSL, within a direct interaction, and prepared BSL which functions more like written language. There is increasing use of prepared sign texts and d/Deaf people need to be able to develop appropriate skills in prepared signing, just as hearing people have the opportunity to develop skills in prepared English writing.

This proposal clearly needs further detailed elaboration. However, if approved it would remove the requirement of an 'annotated' award: the two types of communication would have two different titles: *Communication (English)* and *Communication (BSL)*. This would give full and appropriate recognition to achievement in BSL, while allowing the candidate to choose to undertake *Communication (English)* also. Within education generally, we need to work towards improving standards of sign and spoken-language-based literacy. Thus we might hope to see more and more d/Deaf candidates seeking to obtain Units in both *Communication (English)* and *Communication (BSL)*.

One problem remaining is that the spoken language outcomes may always prove difficult, even impossible for some d/Deaf candidates. However, rather than incorporating signing into the oral skills component of English-based communication skills, SQA should ensure that BSL outcomes as described above are given full recognition, for example in Scottish Group Awards. A d/Deaf candidate should not be placed at a disadvantage because of difficulties in accessing spoken English (see further in Chapter Eight).

Clearly the above proposals require more debate and more elaboration. If we are to develop fully fair assessments for d/Deaf candidates, then we need to begin with the potential of d/Deaf people themselves. We need to try to look at them, and their language(s) in their own terms. Fair assessment should not always mean adapting assessments geared to hearing people for d/Deaf people: wherever possible, it should start with d/Deaf people themselves.

Chapter Eight

Accessing Assessment through English

This chapter will look at the challenges involved in enabling deaf children to access assessments in written English and in spoken English. As suggested in Chapter Four, many d/Deaf candidates will wish to access assessment in English. For some candidates, English will be their first and preferred language. These candidates should be enabled to access English fully within the assessment process. For other candidates, English will be the only language they have been exposed to within their families and educational contexts. As indicated in Chapter Six, this does not necessarily mean that they will have full competence in English. Rather, the accepted view within Deaf Education is that many pupils will have experienced delay in acquiring English and some will be operating with relatively low level literacy skills. There will also be candidates whose first language is BSL, who may welcome the opportunity to access assessments **both** in BSL and English. We shall discuss below just how feasible - and fair- this might be.

A reasonable expectation might be that if the pupil is accessing the curriculum through English, s/he will also be able to access the related assessments. Unfortunately, as explained in Chapter Six, neither access to the curriculum, nor access to assessment can be taken for granted. Given this situation, is there anything that those involved in developing assessment processes, in this case SQA, can do to facilitate access?

Modification of the Written Language of Assessments

One possible way of facilitating access for deaf pupils would be to modify the written language of assessments. This would give recognition to the fact that for many, possibly most, deaf children, English is more equivalent to an additional language, than to a first or primary language: see the comment by Powers on p 41. In fact, modifications to the language of assessments could take account not only of the needs of deaf pupils, but of other pupils for whom English is not their first or preferred language.

While in recent years, the language of examinations has become somewhat more 'user-friendly', there are nevertheless regularly used grammatical and lexical structures which tend to limit, rather than enable, access. The aim would be to develop examination papers and assessment tools which use **accessible** English. This would not necessarily mean using 'simplified' English, but rather taking into account the kinds of structures which act as barriers to understanding for some children. The experience of a number of Examination Boards in the UK is that introducing such modifications has been of positive benefit to all candidates.

Some years ago the British Association of Teachers of the Deaf (BATOD) and the National Association of Tertiary Education of the Deaf (NATED) produced a booklet entitled *The Language of Examinations*. This provides a very useful starting point for looking at the types of modification which may be appropriate for Deaf candidates. The authors of this booklet comment that:

"It is usually the case that Examination Boards explicitly recognise the danger of obscuring the function of a paper in assessing ability in a subject by using language which in effect tests reading skills... Having accepted that the needs of most hearing-impaired candidates can and should be met by ensuring that language is not a barrier to access, many Examining Bodies have incorporated into their procedures a system to make use of the expertise of teachers of the deaf to that end."

BATOD/NATED p. 1

Modifications for all Pupils

The experience of Examination Boards in England suggests that rather than develop 'modified examinations' for specific types of candidates, in this case d/Deaf candidates, Examination Boards should seek to improve opportunities for all candidates by using accessible English.

The traditional argument against such an approach is that learning to deal with the language of examinations is itself part of the educational process: given that certain types of academic texts also exploit similar language, then candidates should have to display ability in coping with this variety of English. However, it is questionable whether it is appropriate to test knowledge of a very specialised use of language within a subject specific examination. Moreover, the language of academic, including scientific and technological, discourse is changing rapidly. Writers are seeking to make information and ideas more available to a wider audience, for example, through the resources of the World Wide Web. Popular educational texts used as preparation for Standard Grade and Highers do not use such language: rather their aim is to communicate ideas about the subject area to their audience. There are increasing sales of 'popular' science and technology books, often written by eminent experts, seeking to make their subject area accessible to a wider audience. Curriculum resources increasingly use language which facilitates rather than hinders understanding. It is inappropriate for the language of assessments to lag behind the changes in approach in the delivery of the curriculum.

The authors of the BATOD/NATED document stress creating accessible English is not simply a matter of changing 'difficult' terms to 'simple' ones. They recognise that it is not only vocabulary which can be modified, but even more importantly, syntax and discourse patterning. Such factors as increased sentence length, the use of the passive voice, the use of embedded structures and multiple questions can all make English less accessible.

In any discussion of modifications of written English, we need, however, to be wary of inconsistent and low expectations. The BATOD/NATED document does incorporate a number of assumptions, as well as explicit claims, about the kind of language which d/Deaf candidates will be able to deal with. One of these is the notion that d/Deaf candidates will have difficulty with abstract terms. Examples of English words likely to cause difficulty include the following English words: "characteristics", "suitable", "process", "properties", "details", and "disadvantage". The authors even comment that

"If the teacher's ingenuity can find an appropriate way of discarding such words, that is all to the good."

BATOD/NATED, p. 13

However, if a deaf pupil is able to and wishes to access the curriculum using English alone, then we would indeed expect that an understanding of such meanings would be essential. If the pupils are accessing the curriculum only through English, yet are not able to deal with such concepts, how are they going to access the curriculum? As indicated in Chapter Six, some deaf children experience delay in acquiring language. Some authors claim that this leads to difficulties in understanding abstract concepts. However, we know that other deaf pupils access such meanings when they are presented in sign, therefore deaf pupils may well be capable of understanding abstract concepts and using abstract terminology. If the pupils are not able to access such meanings through English, then it may be that they would be able to access such meanings through BSL. Of course, this is a placement and policy issue for local authorities and services. The role of SQA is to ensure that linguistic options are available to the d/Deaf candidate and that the language that is used in examinations is accessible to all candidates.

Working Party

It is recommended that a Working Party be established to look in detail at developing accessible English within assessments. This is likely to include those involved in the education of d/Deaf candidates, as well as those involved in educating pupils for whom English is an additional language. Such a Working Party should also include adult d/Deaf people and representatives from different ethnic minority groups.

Spoken English

It might be thought that if the individual is accessing education, for example, within a mainstream school, then it is assumed that they will be able to deal with spoken English in whatever format. However, it is usually recognised that anyone with a hearing loss is likely to have difficulty in accessing spoken language through auditory means alone. While some proponents of aural-oral approaches do suggest minimising visual access to English, eg minimising the use of speech-reading in order to 'train' the auditory mechanism, the majority of teachers and speech and language therapists would accept the requirement to provide visual support

wherever possible. Thus lip-speakers are often used by adult d/Deaf people to help them access lectures, meetings, religious services and so on. Also d/Deaf people will choose to use subtitling options for television and video whenever this is available

It is suggested here that all assessment procedures should take account of the fact that many deaf children will require visual, as well as aural access to spoken English. Thus where components of assessment are in the form of video with sound or sound recordings alone, the d/Deaf candidate will need access to the spoken English through visual means.

Similarly, if the assessment involves group interaction and discussion, then specific technical support, such as loop systems and radio microphones should be exploited. While one might expect that this would be the norm in educational contexts where deaf pupils/students are involved, this is not necessarily the case. SQA should require Centre to make such options available to all d/Deaf candidates. It may also be appropriate in such instances to employ the services of a lip-speaker. The role of a lip-speaker is to present the spoken message more clearly on the lips, in order to facilitate access.

Subtitling

Subtitling has had a major impact on d/Deaf people's access to television and video. Television broadcasters have been required by law to increase the output of subtitled programmes. Having video and television equipment capable of displaying subtitles is a priority for d/Deaf people: it is the norm for d/Deaf people to access television and video in this way. The importance of subtitling is recognised by those who work closely with d/Deaf pupils and students, although, regrettably d/Deaf pupils/students are not always offered the opportunity to watch subtitled materials. Nevertheless, it would seem obvious that subtitled resources should be used within both the curriculum and assessment.

Reasons against using visual and audiological support

Are there any reasons **not** to use visual support for English and audiological support within assessments? Two types of reason have been put forward within informal discussions of this issue: the first relates again to the notion of 'unfair advantage'; the second to the practicalities of providing such support.

The unfair advantage argument

The suggestion here is that providing a visual version of the spoken English will give the d/Deaf candidate an unfair advantage over other candidates. It is hard to find any grounds for this claim. If the candidate is not able to hear the same communication as hearing peers, then that candidate is already placed at a disadvantage. We know that even individuals with useable residual hearing, will hear a distorted pattern of sound. While the d/Deaf person may have learnt to interpret such distortion, s/he is already doing 'extra work' to access the message. The visual presentation of the

English message, for example, through lip-speaking/speech-reading, written transcripts and subtitling simply provides the d/Deaf person with something approximating to the access available to hearing people.

It is worth stressing that providing such resources to facilitate access is increasingly recognised as important even outside of the educational context. We have already seen that broadcasters are required to increase the number of programmes with subtitling. Additionally, broadcasters supply transcripts of certain programmes on requests. Indeed such transcripts are often also available for radio programmes.

Practicalities

One problem faced by those developing assessment materials is that they may be unaware of the types of visual and audiological support available. Those who do not use the subtitling facility offered within Teletext, may not realise how easy it is to choose the subtitling option, '888'. They may also be unaware of the technical requirements for recording subtitles. Caption Readers enable viewers to hire or buy certain films on video and watch them using captions created by the European Captioning Institute (ECI). Some educational services have also developed their own subtitling facilities so that subtitling can be added to educational material. The major d/Deaf voluntary organisations offer technical advice and support in relation to both subtitling and audiological equipment. The National Deaf Children's Society (NDCS), for example, has produced a leaflet on 'Recording Subtitles' which provides clear information on which recorders to use. As such information is constantly changing, it is useful to exploit the technical support services available via the World Wide Web of organisations such as the Royal National Institute for Deaf People (RNID), the British Deaf Association (BOA), the Royal Association of the Deaf (RAD) and the NDCS.

Accessing Assessments in both English and BSL

Deaf children who use signing within education are also, of course, exposed to English. They are likely to move between BSL and English quite frequently and to gain understandings from both. In many ways, this matches the reality of the lives of adult d/Deaf. As indicated in Chapter Four, even Deaf people whose preferred language is BSL make increasing use of English.

New technology allows us to present information simultaneously in different formats. Thus it would be possible to present a screen showing a Movie window with video-type controls for play, rewind etc. This Movie window could show a BSL Movie of the specific examination question. The user could even choose a loop option which would allow the Movie to be watched again and again quite easily. The screen could also show another window containing the written English version of the question. If appropriate, sound could be added so that a spoken version of the question was also available for those who could access it. Finally, the same window could include graphics which might be part of the question. Ideally the d/Deaf candidate would be

able to click onto any of these windows and see the questions presented in BSL and English. Some candidates might completely ignore one of the options, others might use both BSL and English to access the information.

Once again, we have to ask: would this provide an unfair advantage to the d/Deaf candidate? Again the answer has to be 'No'. It could be said that the d/Deaf candidate is getting 'two bites of the cherry', but this has to be placed in a context in which limited access and lack of access is the everyday experience of many d/Deaf people. It is rather like saying that if wheelchair access to a building allows a person in a wheelchair to get into the building faster than other people, then that person has 'an unfair advantage'. It is surely better to employ all the means that we have available to enable full access to assessments by d/Deaf candidates.

Chapter Nine

Equality Issues

Human Rights Issues

The context in which decisions relating to access to the curriculum and access to assessment are made is likely to be increasingly affected by human rights and anti-discriminatory legislation. Under the Scotland Act, the Scottish Executive and the Scottish Parliament are required to comply with rights set out in the European Convention on Human Rights (Chandran, 1999). The right to education as enshrined in the Convention may be at risk if individuals are not able to access both curriculum and assessment in their first or preferred language. Note that some Deaf people would argue that a sign language is the only type of language that is fully accessible to them

In the light of the recent Scottish Office publication *Human Rights in Scotland*, it is clear that there will be increasing scrutiny of all future legislation to ensure that it conforms to the European Convention. We can also expect that there will be similar scrutiny of the application of previous acts, including the Education Acts, to ensure that their interpretation conforms with the Convention. The Recommendations presented in Chapter Ten seek to ensure that d/Deaf candidates will indeed have equal access to assessment processes within the Scottish education system. The Scottish Executive, along with UK Government agencies recently undertook a consultation exercise in connection with their document *SEN and Disability Rights in Education Bill*. While the *Disability Discrimination Act*, enacted in 1995, currently does not apply directly to education, it has already had a significant impact on provisions for Deaf people within other spheres of life.

The proposed legislation would *"make it unlawful for education providers to discriminate a disabled child by:*

- ◆ *Treating a disabled child less favourably on the grounds of their disability than a non-disabled child, without justification, in the arrangements made in the provision of education;*
- ◆ *Failing to take reasonable steps to change any policies, practices or procedures which place a disabled child at a substantial disadvantage compared to a non-disabled child; and*
- ◆ *Failing to take reasonable steps to provide education using a reasonable alternative method where a physical feature places a disabled child at a substantial disadvantage compared to a non-disabled child."*

Scottish Executive et al, 2000, p. 7

The 'duty not to discriminate' is spelled out as follows:

"For this duty, it is intended that discrimination will take place if, for a reason which relates to his disability, a disabled person is treated less favourably than another person and that less favourable treatment cannot be justified. The aim here is to create, so far as is reasonably possible, a level playing field for all children regardless of whether or not they are disabled... "

Scottish Executive et al, 2000, p.8

Currently many deaf children are placed at a disadvantage with respect to both access to the curriculum and access to assessment. It should be clear from previous chapters that there are ways of improving access for the d/Deaf candidate. The two key ways are by allowing access through BSL and by providing visual and audiological support for accessing English. Access through BSL is likely to be given further focus by current actions aimed at giving formal recognition to BSL.

Recognition of BSL

On February 16th 2000, the Scottish Parliament debated the following Motion:

"The Scottish Parliament

notes that British Sign Language is used as an essential communication tool by a substantial number of people in Scotland and has a strong historic tradition;

recognises the pressure on interpreters who are in constant demand particularly in rural areas;

notes that the British Deaf Association is seeking review of the recognition, rights and support applied to the language;

expresses the hope that the Scottish Executive will assist the process by taking actions to implement the European Parliament's recognition of Sign Language as an official language in each of the member states,

and recognises the importance and necessity of British Sign Language by integrating signing into the plenary sessions of the Parliament."

The Motion had strong all-Party support, although the Scottish Executive did not make a firm commitment to recognition. However, it is clear that there is an increasing movement towards recognising BSL, particularly in Scotland. The European Parliament recommended that the sign languages of the member states of the European Community be recognised as far back as 1988. This was reconfirmed by the European Parliament in 1998. In those countries where sign languages are

recognised, there is a greater incorporation of the sign language into the infrastructure of education, employment and social services. The likelihood that such incorporation will eventually be required by law is increased by recent and pending legislation.

It should also be noted that BSL is already implicitly and explicitly recognised by UK and Scottish institutions. UK courts accept BSL as an appropriate language of interpretation within the courts. Scottish accused and witnesses can give evidence in BSL and access the court proceedings in BSL. Similarly the right of anyone who is arrested to be 'informed promptly in a language which he understands' (Article 5 of the Convention) and 'to have the free assistance of an interpreter if he cannot understand or speak the language used in court (Article 6 of the Convention) has already been incorporated into such legislation as the Police and Criminal Evidence Act. While this Act does not apply in Scotland as such, comparable guidelines are in use for Scottish prisoners, accused and witnesses who use BSL.

As noted in Chapter Seven, SQA itself already recognises BSL as a language, offering awards in the language itself and in teaching the language. However, BSL is not fully built into the educational system, in general, nor the assessment system in particular. While there has not, as yet, been any case law to require authorities to provide the option of BSL in education and assessment, it is likely that such cases will occur if practical procedures for BSL inclusion are not brought into place. SQA has already begun the process of improving accessibility to assessment. The implementation of the explicit proposals set out in Chapter Ten should allow this process to be taken forward more effectively.

Chapter Ten

Fair Assessment for Deaf Candidates: Recommendations

Recommendation One

All assessment procedures should take account of the fact that many d/Deaf candidates will require visual, as well as aural access to English. Therefore:

- i. All spoken language assessment materials should be made available in visual formats.
- ii. Audio materials should be accompanied by a written transcription
- iii. Video materials should be subtitled and be accompanied by a written transcription.
- iv. Candidates should also be allowed to use a lip-speaker to facilitate access to 'live' spoken material, if this is their preferred mode of access.

Recommendation Two

A Working Group on the Written English of Assessments should be established.

- i. SQA should convene a Working Group to advise on the written language used in examinations. This group should take into account the fact that for many, possibly most, d/Deaf candidates, English is more equivalent to an additional language, than to a first or primary language.
- ii. Proposed modifications to the language of examinations would take account of the needs of deaf pupils, as well as other pupils for whom English is not their first or preferred language.
- iii. The aims of the Working Group would be to develop examination papers and assessment tools which use **accessible** English. This would not mean using 'simplified' English, but rather taking into account the kinds of structures which might act as barriers to assessment for some children.
- iv. The Working Group would initially assess the recommendations made within the BATOD/NATED publication, but would extend its work beyond these recommendations.

- v. The Working Group should include teachers of deaf children, language specialists, adult d/Deaf people and representatives from different ethnic minority groups.

Recommendation Three

Centres should be required to ensure that candidates are offered appropriate audiological support.

- i. Examination Centres should meet high acoustical standards.
- ii. Loop systems and radio aids should be available.

Recommendation Four

All subject examinations and assessments should be offered in BSL.

- i. Pupils should be able to undertake all subject examinations, except those relating directly to specific languages, such as English, Gaelic and French, in BSL.
- ii. Assessments (eg examination papers) should be presented in BSL.
- iii. Responses should be given in BSL, although given the different linguistic experiences of d/Deaf candidates, more English-based forms of signing will also be accepted.

Recommendation Five

Subject Assessments in BSL should be made available in a standard format:

- i. National written assessments, which are presented in a standard format should have a national, standard format in BSL
- ii. The preferred assessment format would exploit multi-media technology, for example, using Quicktime Movies of BSL. Any graphic representations which form part of the examination would be included within the CD-ROM.
- iii. The signed text should be prepared by a group of experts (known here as the BSL Translation Group), with competence in BSL, English and BSL/English interpretation/translation. The group should also be advised by a subject specialist.

Recommendation Six**Assessments should also be offered in bilingual (English and BSL) formats**

- i. CD-ROMs incorporating BSL Movies should also include written English (and where appropriate spoken English) versions of the questions.
- ii. Candidates will be able to access the information using either BSL or English or both.

Recommendation Seven**BSL Responses should be recorded *in situ* and translated by 'qualified BSL/English interpreters**

- i. Candidates who wish to present their responses in BSL should have their responses videoed, using digital video cameras (this will facilitate the translation process.)
- ii. Candidates should be allowed to supplement their BSL responses with additional graphic/written items as appropriate to the examination.
- iii. Increasingly SQA should move towards integrated multi-media responses, with candidates using computer and video facilities.
- iv. All BSL responses should be translated into English by qualified BSL/English interpreters. These translations should be monitored by the BSL Translation Group (see above).

Recommendation Eight**Candidates should be able to demonstrate communication skills, comprehension and evaluative skills using either BSL or English.**

- i. D/Deaf candidates should be able to undertake core skills Communication units either as Communication (English) or Communication (BSL)
- ii. Candidates should be able to undertake elements of language subjects using BSL
- iii. SQA should establish a group to look at the possibility of BSL being used, for example, in relation to English-based literature. The group would explore ways of enabling candidates to work to their strengths.

Recommendation Nine

These changes should be phased in over a four year period.

- i. CD-ROM pilots in a single subject area should begin in 2001.
- ii. Candidates would be allowed to have the questions signed to them and/or make use of a CD-ROM. SQA would analyse feedback from these pilots.
- iii. The number of subject areas offered in BSL would increase year on year.
- iv. By 2004 signing *in situ* for individual candidates would not be allowed, unless there were additional reasons, eg the candidate was unable to use a computer.

Interim Arrangements

- i. In order to allow schools to prepare for the introduction of standard formats, the arrangements introduced this year for allowing the signing of questions should be continued.
- ii. However, from 2001, all those presenting the signed questions must have an appropriate signing qualification: this will normally be National Certificate Module 7340207 or CACDP Stage 3.
- iii. It is essential that those signing are given adequate time to undertake what is in fact a translation exercise. Feedback on this year's arrangements would be helpful here, but it is suggested that a minimum two hour's preparation should be allowed.
- iv. Where several people are signing the same paper to individual candidates, they should be allowed to confer during the one hour period.