



**Dyslexia and Additional Academic Language Learning**  
**Module 8**

# **Learning Styles and Learning Preferences**

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Adapted for local contexts by Bulgarian, Czech, English and Welsh partners.

Please note that the original authors do not necessarily  
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Dyslang Module 8 – Learning Styles and Learning Preferences

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## Aims and objectives

By the end of this section you will gain knowledge about different learning styles, and will understand how students' learning styles and learning preferences affect the effectiveness of their learning.

## Learning outcomes

- Acquire basic understanding of learning styles
- Acquire knowledge about how learning preferences may influence the effectiveness of learning;
- Acquire knowledge about appropriate learning methods for dyslexic learners.

## Introduction

The term 'learning style' has been widely used in psychology and pedagogy since the 1930s. Various researchers have worked independently on different aspects of learning styles and this has led to a sometimes overwhelming range of learning style theories.

Some theorists have concentrated on the ways in which students prefer to perceive information. This has led to labels of auditory learner for someone who learns best when they hear instructional materials, visual learner for someone who prefers material to be presented in a visual format and tactile-kinaesthetic learner for a person who learns most effectively through hands-on experience.

Although a teacher cannot be expected to simultaneously adapt their teaching to 30+ different learning styles, it is important for the teacher to find out whether learning is more effective when it is presented through one modality rather than another. This is particularly important when working with students with specific learning difficulties who often have difficulties accessing learning when it is only presented through their weaker modality. In the case of multilingual dyslexic children, a lack of verbal ability in a language may force them to rely on the visual or kinaesthetic modality even when this would not be their preferred modality when learning in their home language.

Learning style also refers to the way in which we process information. Some theorists have focussed on distinguishing between individuals who prefer abstract concepts and generalisations and those who prefer concrete and practical examples. This includes whether there is a preference for information presented logically and sequentially or whether an individual responds better to an overview.

When discussing learning style, we must also consider an individual's preferences when organising and presenting information. Do they present an overview or do they provide a detailed and logical analysis? Do they prefer to use images to present their findings?

What we should remember is that people are different, and each of us learns differently. The very same learning conditions, guidance and instructions that can be so effective for one person can cause problems for another.

## 8.1 Learning style

### 8.1.1 Definition

Learning styles relate to the way in which different individuals learn. As researchers have focused on different aspects of this, a wide range of interpretations and definitions have been produced. Della-Dora and Blanchard, for example, (1979, p22) refer to “a personally preferred way of dealing with information and experiences for learning that crosses content areas”, thereby putting emphasis on information processing.

In contrast, Claxton and Rolston’s definition of learning style as “the student’s consistent way of responding and using stimuli in the context of learning” (1978, p1) focuses more on sensory perception.

David Kolb defines ‘Learning Style’ as:

*“a result of hereditary equipment, past experience, and the demands of the present environment combining to produce individual orientations that give differential emphasis to the four basic learning modes postulated in experiential learning theory” (Kolb, 1984).*

This definition has relevance for multilingual learners whose learning style is likely to be influenced by their past experience of education and learning, whether informal learning in their home and community or more formal learning either in a religious setting or in a school in their country of origin.

The type of teaching they have experienced is likely to influence the way they approach language learning. Was their experience of the classroom more teacher-centred or more learner-centred? Were they encouraged to raise their hands when they knew the answer to a question? Were they encouraged to engage in independent, small group work? Learners who are used to a more traditional whole class-based approach might initially show reluctance to participate in games and pair work activities but will gradually become engaged if an unthreatening and supportive environment is established.

Some researchers (e.g. Dunn, 1997; Cox & Ramirez, 1981; Irvine & York, 1995) have associated predominant learning styles with learners from different cultural groups and it seems reasonable to accept that culture has some influence on learning styles. However, it is important to avoid stereotyping and to recognise that many studies support the view that there is no single or specific learning style typical for the members of a cultural, national, racial or religious group. All groups comprise individuals with their own preferences and their own profile of intelligences.

David Kolb (1984) and others (e.g. Kiersey, 2000; Fleming, 2001; Honey, 2002) have considered other possible influences on a person’s learning style and have suggested that these include personality, cognitive styles, temperaments, sensory processes and age.

Learners' different learning styles will affect the way they learn all subjects, including languages. Some learners like listening and talking, others prefer to analyse text, or study with the help of visual support. Most learners, however, have a mixed learning style.

It is generally accepted that dyslexic learners benefit most from a multisensory approach where information is simultaneously presented through several channels. This approach enables weaker modalities to be supported by stronger ones and means that learning is more likely to be effective. The multisensory approach is considered in more detail in Module 4.

## Extension Material 8.1 – Some more definitions

There are a lot of definitions of Learning Style. Some examples are:

Learning Style consists of distinctive, observable behaviours that provide clues to the functioning of people's minds and how they relate to the world. Anthony F. Gregorc (1979, p.234)

Learning Style describes students in terms of those educational conditions under which they are most likely to learn and essentially describes the amount of structure individuals require. David E. Hunt (1981)

Learning Style is the product of the organization of a group of information processing activities that individuals prefer to engage in when confronted with a learning task. Ronald R. Schmeck (1988)

### 8.1.2. Main characteristics of learning style

Learning style is not a single concept, but consists of related elements, that we call characteristics of the learning style. Teachers can build up a picture of their students' learning styles by asking them to complete a learning styles questionnaire and/or by observing them engaging in a range of activities in different settings. Rita and Kenneth Dunn (1993, p2) define learning styles as "the way in which each learner begins to concentrate, process and retain new and difficult information. That interaction occurs differently for everyone." According to their model, strengths and preferences of each individual could be defined across five categories:

- Environmental
- Emotional
- Sociological
- Physical
- Psychological

## On Reflection Task 8.1

- Could you describe the characteristics of your own learning style?
- Could you describe the characteristics of the learning style of one your students (they could be dyslexic and/or with bilingual background)?
- What would you do in order to provide conditions that best match their learning style characteristics?

### 8.1.2.1 Environmental

These include light, sound, temperature and design. While some people like to study in silence, others prefer quiet background music; some might prefer to sit on a straight back chair, while others might prefer to sit on the floor or lie on a sofa. Some people like to work in bright light whereas others prefer low or natural lighting.

It may be quite difficult to envisage a classroom environment that suits everyone but Dunn and Dunn (1978) suggest that a classroom can be partitioned into separate areas, each with a different environmental climate. In terms of dyslexic learners, consideration must be given to lighting, as inappropriate lighting (for example fluorescent lighting) can make it very difficult for a learner to read, listen or focus. Similarly, dyslexic learners may find it difficult to filter out background noise and will therefore need the environment to be very quiet when trying to concentrate on challenging tasks.

### 8.1.2.2 Emotional

These include motivation, persistence, responsibility and organisational skills.

Dyslexics often find it difficult to be persistent in their learning. They have difficulty organising their time and completing tasks on time. They often know what they need to do but have trouble defining the steps they need to take in order to complete a task.

Lack of motivation can be a problem for dyslexic learners. It is the teacher's responsibility to find a way to present educational materials in an interesting and accessible way.

### 8.1.2.3 Sociological

Some students prefer to study by themselves while others achieve better results when they learn with a friend or colleague. Some students require a lot more guidance than others.

Most dyslexics find it easier to learn when they can do it together with someone else. This gives them confidence and they start to believe that

they will manage the new information. Having a fellow student, a teacher or a family member to discuss the topic with, will help them to better understand, perceive and remember the information.

Language learning lends itself naturally to pairwork and group work. As well as practising the target language, learners may also talk to each other about what they have learned or take turns at discussing the meaning of certain items of vocabulary.

Many of the activities mentioned in Module 4 are small group activities likely to appeal to dyslexic learners. For example, webquests offer learners the chance to work in groups and engage in scaffolded learning which leads to the production of an end product. Teachers are able to allocate roles based on learners' strengths and weaknesses. Similarly, cooperative learning is likely to appeal to dyslexic learners with its focus on physical movement and listening and speaking in small groups. Please refer to Module 4 for more examples.

Bilingual dyslexic learners should be provided with an opportunity to work together with somebody who has good language skills in the language of education so that they are not excluded from explanations in that language. It might also be a good idea for the language teacher to use visual and kinaesthetic approaches to accompany verbal explanations so that there is less reliance on the auditory channel.

#### **8.1.2.4 Physical**

These include the time of the day when one's learning is likely to be more effective; some individuals prefer to move around while learning and to have frequent "breaks", while others can sit and work for a long time without breaks.

Dyslexic individuals learn more effectively if learning occurs in small manageable chunks interspersed with regular breaks. This may also apply to newly arrived multilingual learners who are having to put a lot of effort into learning the language of the classroom as well as having to start learning an additional language.

According to Dunn and Dunn (1992), only 28% of primary school students are active early in the morning. For the majority of primary school students, the best time for learning and working is between 10.30 am and 2 pm. As students get older, the percentage of so called "larks" rises to about 40%, but the majority of students still work/learn more effectively in the afternoon/evening. Only 13% can be classed as "owls". Dunn and Dunn also found that student energy is highest after lunch.

What can language teachers do with this information? To activate their students in the morning, they can start with warm-up activities involving physical movement. They could read out a series of statements in French (for example, describing what different students are wearing) and ask the students to sit down if the statement is true and stand up if it is false.

They could organise board races in which teams are told a word in English and have to rush to the board and circle the word in French.

Games/activities involving movement can be very useful for re-energising students throughout the day and ensuring that they remain focused. These can be brief activities in which children have to follow instructions in the target language (for example, 'Simon Says') or where they have to move in a certain way (for example, like a particular animal or demonstrating a particular emotion). In its online training demonstration, CILT suggests the game 'Get up when you hear' in which students are allocated a particular number or word. This could be a colour, item of clothing or whatever particular language area the teacher was working on at that time. The teacher calls out a number or word at random and the student(s) allocated that number or word stand up. This process continues until all the students are standing up. The process is repeated but this time the students sit down when they hear their number/word.

#### **8.1.2.5 Psychological**

These include personal characteristics such as abilities, motivation, temperament, and thinking.

Some people, including many dyslexic individuals, think globally. They start from the whole and then look at the details. Other people think analytically and need to know the details in order to be able to assemble the big picture. (There is further information about global and analytical learners on page 11.)

In order for learning to be effective, it is essential that there is a positive, respectful relationship between learners and that the learning atmosphere is tolerant and supportive.

### **8.1.3. Learning styles and preferable channels of perception**

Much work on learning styles focuses on students' preferred channel of perception. Although it is clear that learners may use different channels at different times depending on the nature of the task to be performed, it is possible to allocate learners to one of the following groups based on their (generally) preferred channel of perception.

#### **8.1.3.1 Visual learners**

Visual learners tend to think in pictures. So while reading they usually create a mental picture of what is described in the text. They don't pay much attention to the dialogue, and may miss the meaning of some phrases if they contain words that are difficult to visualise. That is why it is very important for a visual learner to have the educational material presented using maps, diagrams, charts, pictures, etc.

Visual learners comprise about 65% of all students. (<http://www.studyingstyle.com/visual-learners.html>)

### **8.1.3.2 Auditory learners**

Auditory learners learn best by hearing information. They may have difficulties understanding a text if they read it, but if they listen to it they will be able to capture more of the detail. That is why their results on listening comprehension tests are usually higher than the results they show on reading comprehension tests. Auditory learners are very sensitive to the speech quality, tone and timbre of the voice, intonation, etc. They are often talkative, needing to think aloud; they usually enjoy music, and remember song lyrics and conversations.

About 30% of all students are auditory learners. (<http://www.studyingstyle.com/auditory-learners.html>)

### **8.1.3.3 Kinaesthetic (tactile) learners**

Kinaesthetic learners learn best through touch, movement, imitation, and other physical activities. They remember best by writing or physically manipulating the information. Kinaesthetic learners don't usually like to read instructions, and it is difficult for them to sit still for a long time. Many dyslexic learners favour a kinaesthetic approach.

For further information on characteristics of different types of learners see Extension Material 8.2, and the Appendix (p. 29).

## Extension Material 8.2 – Characteristics of different learners

Visual Learner	Auditory Learner	Kinesthetic Learner
<ul style="list-style-type: none"> <li>• Mind sometimes strays during verbal activities</li> <li>• Observes rather than talks or acts</li> <li>• Organised in approach to tasks</li> <li>• Likes to read</li> <li>• Usually a good speller</li> <li>• Memorises by seeing graphics and pictures</li> <li>• Not too distractable</li> <li>• Finds verbal instructions difficult</li> <li>• Has good handwriting</li> <li>• Remembers faces</li> <li>• Uses advanced planning</li> <li>• Doodles</li> <li>• Quiet by nature</li> <li>• Meticulous, neat in appearance</li> <li>• Notices details</li> </ul>	<ul style="list-style-type: none"> <li>• Talks to self aloud</li> <li>• Enjoys talking</li> <li>• Easily distracted</li> <li>• Has more difficulty with written directions</li> <li>• Likes to be read to</li> <li>• Memorises by steps in a sequence</li> <li>• Enjoys music</li> <li>• Whispers to self while reading</li> <li>• Remembers faces</li> <li>• Easily distracted by noises</li> <li>• Hums or sings</li> <li>• Outgoing by nature</li> <li>• Enjoys listening activities</li> </ul>	<ul style="list-style-type: none"> <li>• Likes physical rewards</li> <li>• In motion most of the time</li> <li>• Likes to touch people when talking to them</li> <li>• Taps pencil or foot while studying</li> <li>• Enjoys doing activities</li> <li>• Reading is not a priority</li> <li>• Poor speller</li> <li>• Likes to solve problems by physically working through them</li> <li>• Will try new things</li> <li>• Outgoing by nature</li> <li>• Expresses emotions through physical means</li> <li>• Uses hands while talking</li> <li>• Dresses for comfort</li> <li>• Enjoys handling objects</li> </ul>

Cohen (1987) conducted research which showed that the majority of very young children are tactile and kinaesthetic. In primary school only 12% of students are predominantly auditory learners and about 40% are visual. The older the students, the larger the number of predominantly visual and auditory learners.

Susan Thompson (2003) discusses the idea of dividing the classroom into different learning stations for different senses. She suggests that a tactile/kinaesthetic station could include a barrel of sand, a fur or suede board and squeeze balls for relaxation. There could also be an area where highly active learners could move around or pace. Auditory learners could benefit from a station with recordings of authors reading their works or music recordings for learners to listen to while reading or writing. Learners who find it beneficial to sub-vocalise could have access to cups (to muffle their voices) which they could speak into so that they could read passages to themselves without disturbing other learners. A visual station would ideally enable learners to be videoed while reading or acting. Seeing themselves successfully completing a task would act as a big confidence-boost. Thompson also recommends the inclusion of candles, scent strips and potpourri pots in learning stations as scents can trigger memories, help link learning to real life experiences and assist with the recall of new concepts.

### 8.1.3.4 Learning style and vocabulary learning

In their analysis of vocabulary learning techniques, Oxford and Crookall (1990) stress the importance of taking learning styles into account. They suggest that visual learners might prefer to learn vocabulary by using visual imagery. Visual imagery involves the forming of associations between a picture and a word and is generally more effective than using words in isolation. They also argue that because the pictorial-verbal combination involves different parts of the brain, it is likely to provide greater cognitive power. Another suggestion is that learners could visualise a set of locations (such as the rooms in their house) and could then associate each place with a particular word or expression and then 'take a mental walk from place to place'. This is likely to be effective for dyslexic learners for whom visualisation is often an area of strength. Oxford and Crookall refer to Talbott's (1999) description of how a learner visualised "long, blonde hair draped over feminine nouns" such as 'la table' ('the table') and "muscles bulging from masculine nouns" such as 'le livre' ('the book') in order to distinguish between French masculine and feminine nouns.

It should be mentioned that the simultaneous use of more than one channel of perception is likely to facilitate learning. This is the basis of the 'Multisensory Approach' which will be discussed later in this module and is also covered in Module 4.

## Extension Material 8.3 - Traditional teaching

"Traditional pedagogy has long favored the left-sided student, emphasizing accurate, rational and sequential thought. Right-sided learners, with a proclivity towards a spontaneous, random, and visual style, possess a mode that is undervalued and often stifled". (Kimmel, 1998)

## On Reflection Task 8.2

- Think of a learner in your class who has either an auditory or kinaesthetic learning preference.
- What strategies might they find useful for learning vocabulary?

### 8.1.4. Learning style depending on brain activity

This aspect of learning style distinguishes between people who focus on detail and those who prefer to concentrate on the bigger picture. Some people are at ease with both but typically a person gravitates towards one or the other.

An important factor in understanding learning styles is understanding brain functioning. Our brain is divided into two parts – hemispheres, by a fold that starts from the front and runs to the back. These parts are connected to each other by a set of nerves whose role is to transfer information from one part to the other and to synchronise their functioning. Both sides of the brain can reason, but they use different strategies and, often, one side is dominant.

Most scientists and researchers agree that there are some significant differences in the way each hemisphere of the brain works. The right brain is considered to be holistic, convergent, able to perceive the big picture. It deals with emotions, feelings, creativity, intuition. The left brain is linear, divergent, and focuses on one thing at a time. It deals with more logical subject areas, such as mathematics and speech. Much of this knowledge is based on the research of Roger W. Sperry, who was jointly awarded the Nobel Prize in Physiology or Medicine in 1981 “for his discoveries concerning the functional specialization of the cerebral hemispheres” (Refer to **Links and further reading**).

A person with left-brain dominance prefers to learn in a step-by-step sequential format, beginning with details leading to a conceptual understanding of a skill. A person with right-brain dominance prefers to start with the general concept and then proceed to the specifics.

Author Thomas West (1997) posits that we are seeing higher incidences of learning disabilities, (dyslexia, ADD, etc.) because the brain is being taught from birth to respond to and learn from visual stimuli rather than from text. Nowadays, at a very early age children are exposed to technological devices, like television, computers, etc. The result of this is that children’s neural pathways are developing in a very different fashion from those of their grandparents and parents. Very often they perceive and process images better than text.

#### 8.1.4.1. Global or analytical learner?

A global learner sees the big picture or overall view, while the analytical learner focuses on the parts that make up the big picture. Global learners hear new information by listening to the “gist” of what is being communicated, quickly getting the main idea or topic. Remembering the details may be somewhat difficult. In following directions the global learner listens for “what is supposed to be done”, not necessarily “how to do it”.

In contrast to the global learner, the analytical learner hears new information and tends to listen for specific details. Getting the overall concept that the details describe may sometimes be difficult for the analytical learner.

## Extension Material 8.4 - Global or Analytical Learner

<b>Characteristics of the Global Learner</b> <ul style="list-style-type: none"> <li>• Learns by discussion and cooperates in group efforts</li> <li>• Does several things at once and may skip steps/details</li> <li>• Sees the big picture and relationships between ideas</li> <li>• Reads between the lines and sees many options</li> <li>• Works hard to please and tries to avoid conflict</li> <li>• Goes with the flow and is generally flexible</li> <li>• Tends to avoid individual competition</li> <li>• Paraphrases in explaining a perspective</li> </ul>	<b>Characteristics of the Analytical Learner</b> <ul style="list-style-type: none"> <li>• Likes going step-by-step in a sequential order</li> <li>• Typically self-motivated, logical, and focused</li> <li>• Must be prepared and needs to know what to expect</li> <li>• Pays close attention to details and specifics</li> <li>• Can find the facts but may miss the main idea</li> <li>• Often values facts over intuition and feelings</li> <li>• Remembers specifics and prefers organisation</li> <li>• Prefers to finish one thing at a time</li> <li>• Has a sense of fairness</li> <li>• May prefer direct answers</li> </ul>
<b>Frustrations of the Global Learner</b> <ul style="list-style-type: none"> <li>• Having to show the steps used to arrive at a particular answer</li> <li>• Accepting criticism of others without taking it personally</li> <li>• Not knowing the purpose for doing a particular task</li> <li>• Not receiving enough credit for the efforts made</li> <li>• Having to explain something analytically and in detail</li> <li>• Having to go step-by-step without knowing the outcome</li> <li>• People who are insensitive to the feelings of others</li> <li>• Not getting a fair chance to explain oneself</li> </ul>	<b>Frustrations of the Analytical Learner</b> <ul style="list-style-type: none"> <li>• Listening to a long explanation when all that is needed is a simple “yes” or “no” response</li> <li>• Listening to an overview without knowing the steps involved</li> <li>• Not understanding how an employer/instructor evaluates</li> <li>• Not finishing one task before going on to the next</li> <li>• Having opinions expressed as fact without evidence</li> <li>• Not having an understanding of the purpose of the task</li> <li>• Dealing with broad generalities and not having the specifics</li> </ul>

### On Reflection Task 8.3

- How would you describe yourself – as a global or analytical learner?
- Using the table above find out how many of your students are global learners, and how many are analytical.

### 8.1.5 Learning style models

There are a large number of Learning Style Models based on a wide range of factors and personal characteristics which may influence an individual's capacity to learn.

Some of the most popular learning style models are those of Kolb and Gardner.

#### 8.1.5.1. Kolb's Experiential learning style model

According to David Kolb (1994), the learning cycle (Fig. 1) involves four stages (concrete experience, reflective observation, abstract conceptualisation and active experimentation) that must be present for learning to take place. Kolb identified 4 learning styles which correspond to these stages and categorised learners into assimilators, convergers, accommodators and divergers.

Kolb says that ideally (but not always) this process represents a learning cycle or spiral where the learner "touches all the bases". Immediate or concrete experiences lead to observations and reflections. These reflections are then assimilated into abstract concepts with implications for action, which the person can actively test and experiment with, in turn enabling the creation of new experiences.

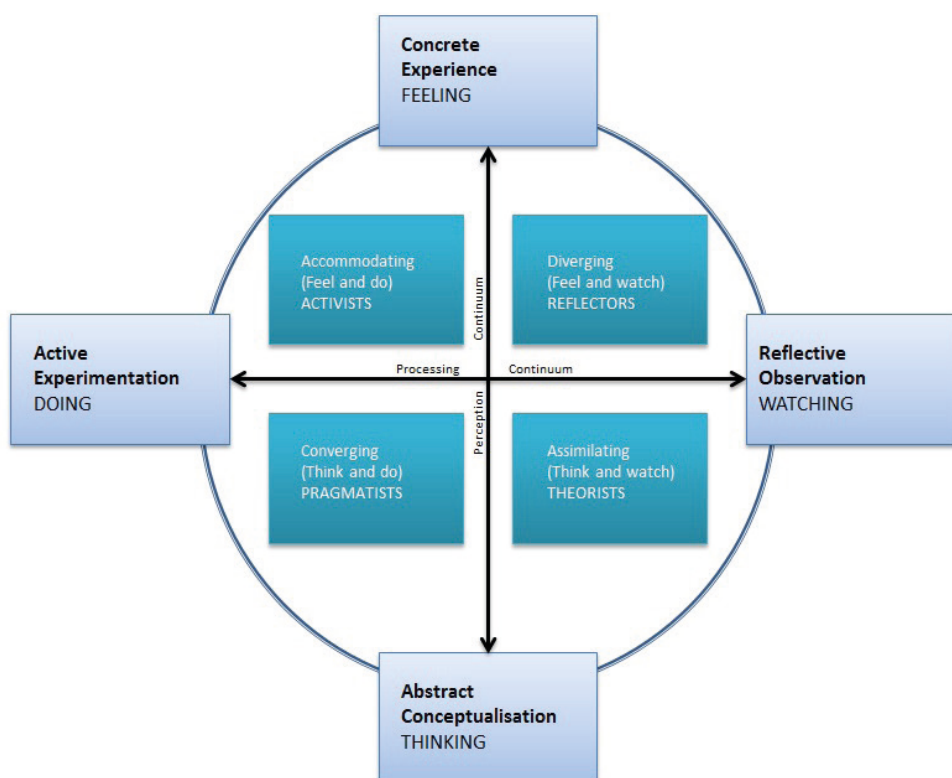


Fig 1. Kolb's Experiential Model

The Kolb categories also match the visual, auditory and kinaesthetic learning preferences mentioned in section 8.1.3. with the kinaesthetic learning style corresponding to the learning by doing (the accommodators and convergers) and the visual and auditory learning styles corresponding to the learning by looking and listening (the divergers and assimilators).

#### **8.1.5.2 Gardner's Multiple Intelligences learning style model**

Howard Gardner is best known for his 'Multiple Intelligences Theory' which he developed in 1983. He initially identified seven distinct intelligences but subsequently added two more.

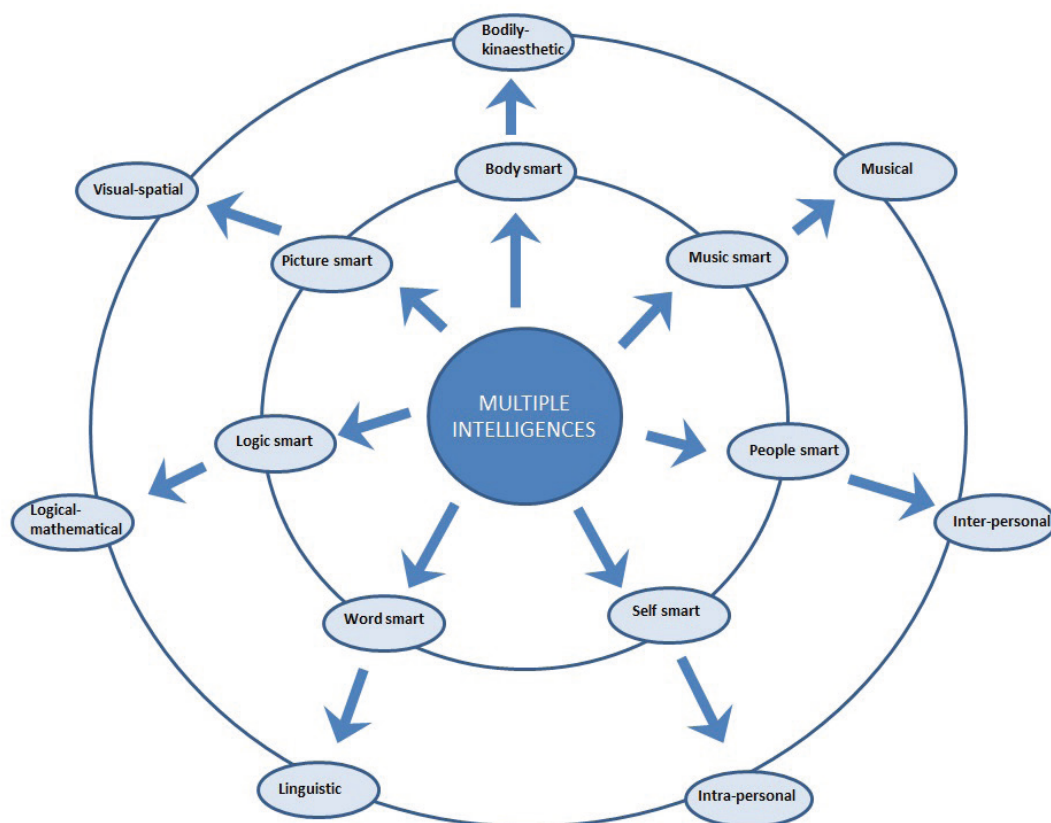
According to Gardner (1991, p12), "we are all able to know the world through language, logical-mathematical analysis, spatial representation, musical thinking, the use of the body to solve problems or to make things, an understanding of other individuals, and an understanding of ourselves".

Each type of intelligence comprises numerous skills, and is a system with its own functions that are different for each individual. These types of intelligence are independent from each other so assessing a person's musical intelligence will not provide us with information about their linguistic intelligence. Nevertheless, there is interaction between different intelligences when it comes to solving certain problems. For example, carrying out a mathematical operation will require our linguistic and logical intelligences to cooperate.

Gardner continues (1991, p12): "Where individuals differ is in the strength of these intelligences - the so-called profile of intelligences - and in the ways in which such intelligences are invoked and combined to carry out different tasks, solve diverse problems, and progress in various domains."

Based on this theory, Gardner's original intelligences comprised:

- visual-spatial
- bodily-kinaesthetic
- musical
- interpersonal
- intrapersonal
- linguistic
- logical-mathematical



*Fig.2. Gardner's Multiple Intelligences Model with respective learning styles*

It is important that language teachers incorporate the concept of multiple intelligences into their teaching. A dyslexic student might have difficulties with language processing but might have a more well-developed bodily/ kinaesthetic intelligence. Activities involving drama or role play would access this learning strength and would result in effective learning. They would also give the student the opportunity to display their natural abilities to their classmates.

The use of drama can be very effective in language teaching as it appeals to various learning styles. It will also engage children who are more comfortable with speaking and listening than with reading and writing. Even children who have a low level of language knowledge can participate by using gesture, facial expression and other means of nonverbal communication.

Drama can be very motivating as it is used for real communication in the classroom and it appeals to children's emotions. Children who are usually shy often gain in confidence because they adopt a new persona and can distance themselves from their 'normal' self.

## Extension Material 8.5 - Learning styles (Gardner)

Learning Style	Characteristics	Tips
<b>Visual-Spatial</b>	Very aware of the environment, thinks in terms of physical space; likes to draw, do jigsaw puzzles, read maps, daydream.	Better results if taught through drawings, verbal and physical imagery, models, graphics, charts, photographs, drawings, 3-D modeling, video, multimedia.
<b>Bodily-Kinaesthetic</b>	Keen sense of body awareness; likes movement, making things, touching; communicates well through body language.	Better results if taught through physical activity, hands-on learning, acting out, role playing.
<b>Musical</b>	Shows sensitivity to rhythm and sound; loves music; sensitive to sounds in the environment.	May study better with music in the background; using rhythmical speech and rhymes could help; tools include musical instruments, music, radio, stereo, CD-ROM, multimedia.
<b>Inter-personal</b>	Good communication with other participants in the learning process; understands and interacts well with others; has many friends.	Better results if taught through group activities, seminars, dialogues.
<b>Intra-personal</b>	Understands own interests and goals; aware of own feelings; has wisdom, intuition and motivation; has an opinion in any situation; can plan own activities.	Better results if taught through independent study and introspection; tools include books, creative materials, diaries, privacy and time.
<b>Linguistic</b>	Has highly developed auditory skills and often thinks aloud; uses words effectively; likes reading, playing word games, making up poetry or stories.	Better results if the learning material is presented in text format; encourage them to say and see words, to take notes, and to use key words.
<b>Logical-Mathematical</b>	Thinks conceptually, abstractly and is able to see and explore patterns and relationships; needs to learn and form concepts before they can deal with details; likes to experiment; good at reasoning and calculating.	Better results if the learning material is presented in sequential order and is well-structured; can be taught through logic games, investigations, mysteries.

### On Reflection Task 8.4

You are teaching Spanish to a group of secondary students. This is their third year of studying the language as an MFL. In your class you have 26 students; 10 with bilingual backgrounds, and 3 diagnosed with dyslexia. All the dyslexic students and some of the bilingual ones are having significant difficulties learning Spanish.

According to Gardner's Theory one of your problematic students is primarily Body Smart, two are Picture Smart, and the others are People Smart.

The topic of the lesson is "Food".

- What approach would you adopt to ensure that the learning material and additional exercises were presented in a way that would match the different learning styles of your students?

You may wish to refer to Extension Material 8.4 above for some tips.

A dyslexic student with a highly developed interpersonal intelligence enjoys learning with other people and is likely to flourish when engaged in cooperative learning activities such as the Jigsaw Technique described in Module 4.

On the other hand, a dyslexic student with a strong visual-spatial intelligence will probably respond well to mnemo-techniques (involving the memorisation of well-defined visual images) for learning new vocabulary. Please refer to Module 4 for more information on this.

Tom Blodget (2000) points out that the use of music can be very effective in incorporating the various intelligences into classroom teaching. While listening and singing clearly address the musical intelligence, the kinaesthetic intelligence is addressed by dancing, miming, clapping and percussion. The visual intelligence could be incorporated by selecting songs which contain substantial visual imagery and learners could be asked to design booklets illustrating the lyrics of a particular song. Dance, choreography and group singing appeal to the interpersonal intelligence.

Songs provide teachers with the opportunity for the aural-musical presentation of target language and can be used to re-visit and reinforce material that has already been taught. For example, a song such as *Tom's Diner* by Suzanne Vega can be very effective for giving learners of English practice in the use of the present continuous tense.

### Case study 8.1

'These shoes are made for talking' is an interesting example of the use of process drama carried out over a period of 10 weeks in a foreign language classroom. The children 'became' French children and used their imagination to create 'real life' scenarios. They were able to develop their language skills and their cultural awareness.

The children were shown photos and video clips of French children at school and were asked about the children's behaviour. They then discussed which lesson they would like to use for their first role play and they agreed to do maths followed by singing practice. They revised the numbers in French and the teacher presented some key vocabulary. In part of the next session, one of the children played the part of the teacher. The 'real' teacher then presented some new vocabulary (clothing) and taught them a French song. There was a short drama session with the children acting as French pupils, doing the register and counting. In the next session, another child played the part of the teacher for part of the session and the children also practised asking each other questions about what they were wearing. At the end of one session, the children found a wand and realized that a wizard was going to visit their class. They discussed the questions that they could ask the wizard and practised the questions in pairs. They were also encouraged to ask questions spontaneously.

When asked to comment on the experience, the children said that they had enjoyed the fact that everyone in the class was able to participate and they felt that the French that they had learned had been meaningful. They particularly valued having some decision-making power which gave them ownership of their learning.

For more information about this project, please refer to Links into Languages: 'These shoes are made for talking'  
<http://www.linksintolanguages.ac.uk/resources/2518>

## 8.2 Learning style and Teaching approach

### 8.2.1 Teacher's awareness

There are many ways of approaching learning materials and the one we choose is a reflection of the way we think and learn. The effectiveness of the learning depends on closely matching the teaching and learning resources to the learner's preferences. By using different methods such as auditory/visual as well as tactile/kinaesthetic, students will learn better than if just one technique was used.

According to Rief's research (1993, p.53) students retain

- 10% of what they read
- 20% of what they hear
- 30% of what they see
- 50% of what they see and hear
- 70% of what they say
- 90% of what they say and do.

There may be many reasons why some individuals struggle to learn. These could include motivation or a cognitive deficit such as an auditory short term memory problem. It may also be the case that the student's preferred learning style is just too different from the teaching method leaving them unable to engage within the classroom instruction. It is the teacher's role to help the learner explore different learning strategies and to find ways to succeed.

Many dyslexic individuals are disadvantaged by traditional educational methods which do not cater to their learning styles. It is essential that teachers adopt teaching styles that make their teaching accessible to all, even when this requires them to move away from their comfort zone.

### 8.2.2. The Multisensory Approach

A multisensory approach refers to any learning activity that provides simultaneous input or output via two or more sensory channels. Learning that is experienced through two or more senses is much more likely to be retained by students. This approach is particularly important for students with learning difficulties and for students with a multilingual background who may not be able to rely on verbal explanations in the language of instruction.

This has also been discussed in detail in section 4.8.1 of Module 4.

Although there is increased awareness of the multisensory approach, much teaching still relies on the learner's ability to process information through one channel, namely the one selected by the teacher. For a dyslexic child, difficulties with visual tracking and visual processing may mean that they cannot process information presented only through the

visual modality. Similarly, a child with poor auditory memory or auditory processing difficulties may not be able to process information presented only through the auditory modality.

It may initially seem very difficult to adopt a multisensory approach but just consider the process of teaching a child to read the 'ai' pattern in English. The teacher can start by saying a group of words (rain, pain, train, etc.) and asking the learners to listen, repeat the words and tell her the common sound. She can then ask the learners to look at the words and identify the common pattern in all the words. Next she can encourage the learners to make an auditory/visual link by saying with her, "The sound (a) is made by the letters 'ai' in the middle of these words". In order to bring in the kinaesthetic element, she asks the learners to watch her write the letters and then to trace the letters, saying the pattern at the same time. The learners copy the letters (again saying the pattern) and then write them without looking. Finally, they say and write each new word, spelling it at the same time. (Based on teaching reading handout - Dyslexia Action/BDA.)

The teaching of pronunciation has traditionally relied heavily on the auditory modality and the 'listen and repeat' approach. This can be ineffective because it jumps straight to the production stage before the students have had the chance to properly perceive and recognise the sounds. A multisensory, multicognitive approach as described by Edward Odisho (2007) is far more effective because it makes use of visual and tactile-kinaesthetic techniques as well as auditory ones. It emphasises the importance of seeing and visualising sound production and the accompanying body and facial gestures. Odisho stresses the importance of encouraging students to monitor their teacher's lip configurations and getting them to recognise the difference in the place and manner in which the sounds are articulated. For example, when working on the pronunciation of /b/ and /v/, he suggests that this can be emphasised by exaggerating the differences in the lip posture and by referring to the /v/ posture as a 'dogface' (as it could resemble an angry dog about to bark or bite) and the /b/ posture as a 'tight-lip face' (as the lips come together tightly for the sound). This use of humour can help learners to remember the differences in articulation. Learners can be asked to work in pairs and practise performing these articulatory postures. Colours and pictures can also be used to underline the difference between the sounds of a number of minimal pairs. In this way, input from the different modalities will be received by the brain and should ensure that the appropriate 'acoustic image' is created.

The students are encouraged to listen actively, to retain the sounds and to then compare and contrast them with sounds that they are already familiar with. When students move on to the production stage, they compare their own attempts and consider which factors (such as the position and shape of their tongue) may have made one attempt better than another.

Developments in technology have enabled teachers to create a much more multisensory learning environment. For example, text-to-speech programs enable learners to see and hear the written text on screen or as it is entered and the simultaneous highlighting of text being spoken is very beneficial. They provide a spoken version for computer generated written tasks and this multisensory approach significantly facilitates the revision process. Speech support makes it easier for dyslexic learners to access literacy activities; pupils can listen to instructions, help menus, spell checkers and words in games. The reading process can be made easier by the auditory repetition of text. Interactive games often include positive spoken comments which can boost a learner's self-esteem. Mind-mapping software can help the learner plan their written work, and word banks, writing frames and story plan templates can assist the writing process itself (Refer to **Links and further reading**).

## Conclusion

If teachers have insight into their students' learning styles, they will have a better understanding of each student's individual needs and increased understanding of the areas in which that student is likely to require additional support and, importantly, those areas in which they are likely to shine. Teachers with this knowledge are likely to put a greater emphasis on the need to vary classroom activities and to incorporate multisensory approaches wherever possible. Students will value the fact that their teacher is interested in their learning style and will gain insight into the ways in which they can learn most effectively. This will help them in the organisation of their learning and will guide them towards becoming more independent learners.

## Appendix 1: Visual Learner

### The Seeing-is-Believing Student

#### Is Natural at

- Dressing well
- Remembering details and colors
- Reading, spelling, proofreading
- Remembering faces of people (but forgets names)
- Remembers names seen in print
- Creating mental (visual) images

#### Solves Problems by

- Reading information, listing problems
- Preparing graphic organisers to organise thoughts
- Using flow charts
- Seeing that it works graphically -- on paper -- and in the mind's eye

#### Testing and Assessment Needs

- Visual/written tests
- Research papers
- Written reports
- Graphic illustrations

#### Learns Best by

- Taking notes, making lists
- Reading information to be learned
- Learning from books, videotapes, filmstrips, printouts
- Seeing a demonstration

#### Studying/Reading Characteristics

- Reads for pleasure/relaxation
- Can spend long periods of time studying
- Requires quiet during study
- Reads rapidly
- Learns to spell words in configurations rather than phonetically

#### Difficulties in School

- Need to take action before seeing what needs to be done
- Working in an environment with noise or movement
- Tuning out sounds
- Listening to lectures without visual pictures or illustrations
- Working in classrooms with no decorations or drab colors
- Working under fluorescent lights -- makes it hard to concentrate

## Appendix 2: Auditory Learner

### The Talking, Listening Student

#### Is Natural at

- Speaking “off the cuff” -- can think on his/her feet
- Noticing sounds in environment
- Remembering names of people he or she meets -- forgets faces
- Working with words and languages
- Tuning into small shifts in voice intonation

#### Solves Problems by

- Talking about pros and cons
- Talking about options
- Asking others what they would do in a situation
- Verbalising the goal until it sounds right
- Auditory repetition

#### Testing and Assessment Needs

- Verbal rather than written
- Describes projects orally
- Sings or recites poetry as projects
- Needs to be interviewed for what has been learned

#### Learns Best by

- Talking aloud
- Listening to a lecture
- Discussing in small or large groups
- Hearing music without words as a background in the learning environment

#### Studying/Reading Characteristics

- Reads dialogues and plays
- Subvocalises internally or externally for comprehension
- Stops while reading to talk to self or others about what is read
- Good at phonetically sounding out new words

#### Difficulties in School

- Reading quickly; reads more slowly than visual learner
- Reading silently for prolonged periods of times
- Reading directions; unaware of illustrations
- Taking timed tests that must be read and written
- Living with enforced silence -- can't wait to talk
- Seeing significant detail

## Appendix 3: Kinaesthetic Learner

### The Action Student

#### Is Natural at

- Sports, dance
- Adventure, competition, challenge
- Running, jumping, leaping, rolling
- Actions using gross motor muscles

#### Solves Problems by

- Taking action, then planning based on results
- Attacking problems physically
- Seeking solutions that involve great physical activity
- Preferring to solve problems individually or in small groups
- Trial and error/exploration

#### Testing and Assessment Needs

- Performance based
- Project orientated
- Show or demonstrate what student has learned
- Application level -- prefers to show how to do something

#### Learns Best by

- Doing, hands-on approach -- manipulation, simulations, live events
- Physical involvement in learning
- Field trips to gain knowledge
- Small group discussion

#### Studying/Reading Characteristics

- Reads primarily for meaning and function, rather than enjoyment
- Reads "how-to" books
- Reads action-oriented books/plays
- Reads books that are brief
- Studies for short periods interspersed with moving around
- Lies on floor or bed to study

#### Difficulties in School

- Having good interpersonal skills
- Having legible cursive handwriting
- Sitting still
- Listening to verbal teaching for more than a few minutes
- Spelling
- Recalling what was seen or heard -- remembers everything that was done
- Expressing emotions without physical movement
- Sticking with any activity for long periods of time

## Appendix 4: Tactile Learner

### The Sensitive, Feeling/Tactile, Touching Student

#### Is Natural at

- Interpersonal skills, anticipating people's feelings
- Reading nonverbal communication
- Fine motor activities, graphics, crafts, cursive writing and calligraphy
- Sensing environmental issues such as heat, cold, smells

#### Solves Problems by

- Thinking "what would it feel like if..."
- Talking to people in order to share feelings about the problem and the solution
- Following a solution when he or she knows it feels right
- Going at own pace

#### Testing and Assessment Needs

- Performs or takes test when he or she is ready or comfortable
- Tests best when he or she can be subjective -- essay questions
- Open book, low pressure
- Could be "test phobic" if environment is not secure

#### Learns Best by

- Liking and respecting the teacher
- Having a welcoming, comfortable, secure classroom climate and environment
- Working with things they can handle
- Progressing at own pace
- Rewriting notes taken in class

#### Studying/Reading Characteristics

- Reads for pleasure and feelings it evokes
- Reads at his or her own pace and likes to select what is read
- Prefers historical and/or romantic novels or biographies
- Studies best in pleasant surroundings

#### Difficulties in School

- Learning if feelings are hurt
- Succeeding without teacher approval and respect
- Working in a classroom not decorated in a warm way
- Working with people that don't like him or her
- Being in the class of a teacher whose interpersonal skills are weak
- Needs to touch, feel, manipulate things

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## Links and further reading

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### Some links to free on-line tests:

- [http://www.acceleratedlearning.com/method/test\\_flash.html](http://www.acceleratedlearning.com/method/test_flash.html)
- <http://www.learning-styles-online.com/inventory/>
- <http://www.howtolearn.com/learning-styles-quiz>
- <http://www.edutopia.org/multiple-intelligences-learning-styles-quiz>
- <http://www.vark-learn.com/english/page.asp?p=questionnaire>