



## ***Genetic Brain Organisation Profile***

CONFIDENTIAL

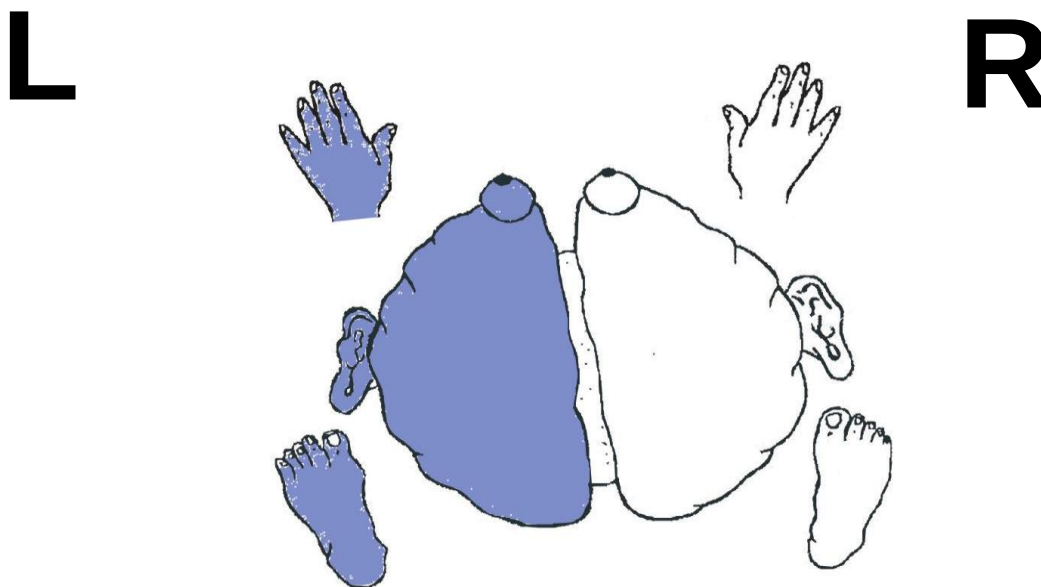
Web: [www.eduprofile.co.za](http://www.eduprofile.co.za)

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## 1. Genetic Brain Organisation Profile

Visually the *Genetic Brain Organisation Profile* presents as follows:

**PROFILE HH:** Linear / Mixed



## 2. Dominance checks

The dominance patterns were observed with the intention of eliciting the individual's genetic profile. The profile indicates the preferred cognitive and operational functioning under normal circumstances and the predicted compensations during stress. The HH Profile has left brain hemisphere dominance. Both receptive and both expressive modalities function from the non-dominant right brain hemisphere.

| MODALITY         | LEFT | RIGHT |
|------------------|------|-------|
| Brain Hemisphere | ●    |       |
| Eye              | ●    |       |
| Ear              | ●    |       |
| Hand             | ●    |       |
| Foot             | ●    |       |

## 1.1 Introduction

It all starts with **you**, consciously and unconsciously! You have decided to make an investment in yourself by discovering more about yourself namely your personal **Brain Organisation Profile (GBP)**! Some of the facts that you will discover might be familiar but we hope that there might be some delightful surprises for you as well – some talent which you might not have utilized yet. Thus you might wonder about the why and how of your GBP.

### **a. Why do we have a GBP?**

The obvious reason why all humans are programmed with a GBP is for survival purposes, for when in danger so that the body will understand which foot needs to start running first and which arm will respond impulsively in defending yourself. Therefore we also assist in giving advice related to how your success in specific sport!

### **b. Why should you understand your GBP?**

Your GBP is established at conception, innately programming the way in which you do, hear, see, approach, perceive and react to people and specific situations. This information can assist you to plan for such and be aware of the factors that will cause you to

- Approach your work in a specific way
- Like or dislike certain tasks
- Have certain perceptions
- Stress or be apprehensive in specific situations or around certain people
- Prefer certain hobbies, activities and social situations
- Prefer to be alone or happier surrounded by other people
- Make certain mistakes unconsciously
- Be at risk in certain relationships; therefore understand how and why you might sometimes be manipulated making you vulnerable and sensitive or even to react in an aggressive manner!

*The ultimate aim* for understanding your GBP is to in your ideal career use your potential sensitivities as a strength! Once we have established your GBP we can assist you in giving you the criteria of how you would like to interact with others at work, how you should operationally be involved in tasks and how you would come across emotionally!

### **c. When should I assess my GBP?**

Ideally in the perfect world we would like to establish the GBP already at age 3 in order to proactively enable awareness of potential learning challenges, while at the same time establishing physical, emotional, cognitive and intellectual potential.

Key interventions where the GBP will assist in decisions will be:

- Before going to pre-school
- To establish - School readiness
- Before making - Subject choices

- Before making - Career choices and considering promotional prospects
- Life choices (relationship, lifestyle, hobbies and relaxation options)

## **2.1 Brain hemisphere dominance**

The dominant brain hemisphere was determined by predominant deltoid resistance indicated by muscle checking. Dominance was identified in the left hemisphere of the brain. This implies:

- Conscious reaction (you generally think before you react)
- Purposeful
- Compulsive rather than impulsive
- Sequential thinking
- Linear thinking
- Auditory analytical (you analyse the details in what you hear)
- Visio – focal (you prefer to see pictures rather than simply being told information)

## **2.2 Eye dominance**

The eye dominance was determined via the Straight-Arm eye test; and was confirmed by predominant deltoid resistance indicated by muscle checking. Dominance was identified in the left eye.

- Tracks from right to left
- Gross motor movements
- Sees the 'big picture'
- Spatial
- Shape
- Colour
- Distance
- Hindsight
- Sensitive to visual movement

## **2.3 Ear dominance**

The ear dominance was determined through predominant deltoid resistance indicated by muscle checking. Dominance was identified in the left ear. This implies:

- Figurative language
- Rhythm
- Echo effect
- Gestalt / Tonal
- Sensitive ear
- Sympathetic ear
- Hears emotional intonation
- Builds sounds into words

## 2.4 Hand dominance

The dominant hand was identified by predominant deltoid resistance established via muscle checking. The left hand was indicated as dominant over the lesser deltoid resistance of the right hand.

- Highly verbal
- Poetic or metaphorical communication
- Can experience difficulty with penmanship
- Artistic tendencies
- Likely to find new methods to process tasks

If you make use of your right hand, it is considered to be the *functional* hand. This is *learned* behaviour and implies that the profile is, in fact, ambidextrous.

## 2.5 Foot dominance

The foot dominance was identified by predominant deltoid resistance established via muscle checking. The left foot was identified as being dominant. This implies:

- Unstructured, creative approach to problem solving
- Likely to consistently adopt new approaches to problems
- Tends to avoid confrontation by walking away

Dominance in the left foot also implies natural ability for sports which require change-in-direction foot work. Examples of these sports are hockey, netball and polo. The left foot has natural rhythm and implies ability for dancing and floor work in gymnastics.

***Although genetically dominant traits have been established, it is the combination and interrelatedness of the dominant modalities which determine the uniqueness of the profile.***

### 3. *Dominance profile*

Individuals represented by the HH Profile tend to exhibit the following traits:

- Open and outgoing
- Pleasant
- Cooperative
- Positive and upbeat
- Empathetic
- People-oriented
- Tolerant
- Realistic
- Quick to act
- Adaptable

### 4. *Overview*

The HH Profile's major attributes are logic, expression and full sensory blockages. The HH Profile processes best internally without external sensory stimulation.

The sensitive left eye physiologically prefers to track from right to left. This may result in tiredness if much reading is required. There is also the potential for letter and number reversals or transpositions when dealing with highly detailed text.

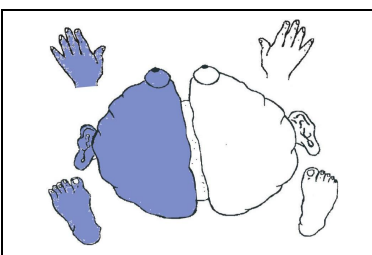
You may also experience some difficulty with communicating (in writing and verbally) due to the left hand dominance.

The left ear may have difficulty with listening, memory and communication in a logical context.

### 5. *Normal functioning*

Under normal conditions, the inherent strengths, weaknesses or sensitivities and personality traits are exhibited in the way the individual functions. This is based on the premise that no synaptic stress has occurred, and the individual still has full access to both hemispheres of the brain.

The HH Profile's *Genetic Brain Organisation Profile* is shown here again for ease of reference:

|  | MODALITY         | DOMINANCE |
|-------------------------------------------------------------------------------------|------------------|-----------|
|                                                                                     | Brain hemisphere | Left      |
|                                                                                     | Eye              | Left      |
|                                                                                     | Ear              | Left      |
|                                                                                     | Hand             | Left      |
|                                                                                     | Foot             | Left      |

The HH Profile processes visual and auditory information in the right (gestalt) hemisphere. The expressive hand modality also functions from this hemisphere. Thus, you receive information

creatively (although sensitively as well) and express yourself creatively too. Your approach to decision making and problem solving will be spontaneous and innovative due to the dominance of the left foot.

Your success in absorbing information will be directly influenced by the tone of voice and body language of others. When others look or sound emotional, you will analyse the emotion and miss the actual specifics of what was observed or heard.

The genetically dominant left eye tracks from right to left. This can result in tiredness when reading large volumes of text. It may also miss written detail, and letter and number transpositions are also possible. However, the left eye has exquisite intelligence to visualise and conceptualise innovative ideas. It also has wonderful artistic and design ability. Be aware that the left eye is also acutely sensitive to the body language and facial expressions of other people. The HH Profile can incorrectly assume responsibility when others appear to be unhappy or angry. You can easily feel intimidated.

The left eye is also sensitive to movement going on in the environment and aesthetically pleasing objects. It therefore has the tendency to become distracted and scan the surroundings for something to day-dream or visualise about. This can lead to difficulty in maintaining eye contact with a speaker, if it is required for a lengthy period. To assist the eye in remaining focused, work areas should therefore be uncluttered and free of visual distractions. Try note-taking as a trick to focus your attention.

HH Profiles need to 'see love'. It is highly beneficial to your emotional state and level of motivation if you witness happy reactions from other people due to your effort. You appreciate visual recognition such as notes, cards, emails, flowers etc.

Profiles with left ears have the ability to harmonise well in a singing group and to compose music. Because the auditory sense of the left ear is more acute than that of most other modalities, detail may not be heard if an instruction or discussion takes place at a slightly higher pitch.

The expressive hand modality is controlled by the creative brain hemisphere, which implies that you are flexible and adaptable as a person. Your organisation and execution of tasks will be more creative and innovative, although problem solving may still follow logical sequences or processes.

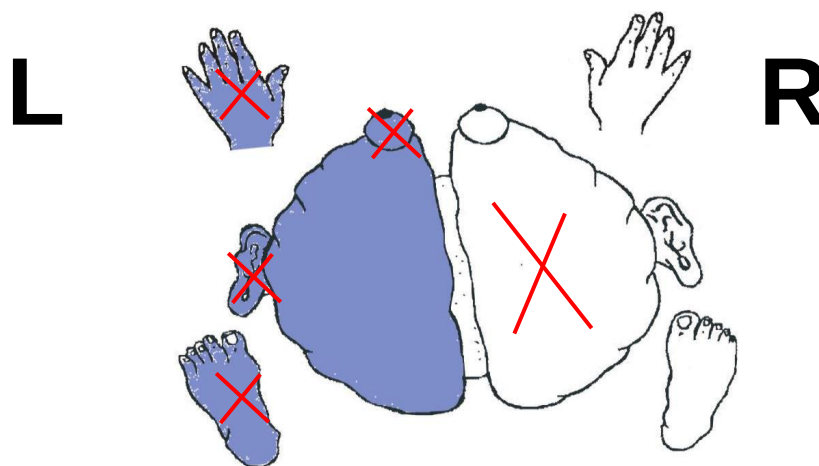
It is important to understand that there is innate contradiction in your profile. While you are extremely innovative, conceptual and creative due to three of your modalities having full access to the creative right brain, dominance of the left hemisphere means it always wants to sequence and structure your ideas. It is critical that you put time aside for this structuring and sequencing.

The HH Profile is the ultimate organiser of programmes and events that are extraordinarily creative and different. It also has the ability to categorise and structure data. Where others may revisit previous success to use as examples, you are able to view each new challenge uniquely. Your biggest frustration is that both your abilities to process information and to express yourself are completely inhibited under stress.

## 6. Stress functioning

Under stressful conditions, access to the non-dominant right brain hemisphere is affected first. The result is that all other dominant modalities controlled by the non-dominant brain hemisphere will also be inhibited. In the case of the HH Profile, all four dominant modalities are controlled by the non-dominant right brain hemisphere, thus all the dominant modalities are affected by stress.

The stress profile is visually represented as follows:



During stress, the eye, ear and hand are all affected, which means that you are likely to behave in a more emotional manner than you normally would. The blocked eye and ear will lead to problems with memory, seeing detail and mathematical calculations. Because of these potential problems, you may tend to avoid such activities. While you usually communicate eloquently and with flair, during stress you are more inhibited and less spontaneous.

The functioning of the eye and ear become emotional under stress. At this time, you will perceive body language and facial expression visually rather than factual detail. The ear will *hear* what it thought it *saw*; it will only interpret tone and pitch of voice and is affected by how the other person looks.

With both the receptive modalities you require emotional support, and you need to manage your reactions in order not to become a victim of only interpreting emotionally. Your open foot in stress means that you are able to walk away from conflict or confrontation if you need to.

Physical activity can assist with regenerating energy in the right brain hemisphere. Sport and hobbies should therefore be pursued for stress release and to reduce the stress blockages experienced when the right hemisphere shuts down.



## **7. *Barriers***

- Hearing and seeing others when they are upset causes you to stress
- Being the cause of others looking or sounding upset
- Unstructured work experiences and environment
- Impatience from others
- Unfair labelling and treatment
- Visual and auditory distractions at work
- No visual recognition or verbal reward
- Inability to communicate when stressed

## **8. *Implications***

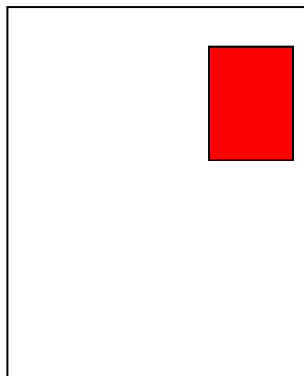
- Full sensory and expressive blockages under stress
- You are always sensitive to visual and auditory distractions, tone of voice and body language
- The bigger the group or meeting, the more distracted you will become
- The above sensitivities open you up to manipulation by others
- You are always subtly stressed; you need to see what someone looks like and hear what they sound like before you can relax
- You understand and integrate information best by visual and manual experiences, writing and discussion
- You may need to touch, see or speak and/or write new information to internalise and remember it
- When experiencing difficulty following directions, you may benefit from whole body movement
- When not under stress, you easily access image, rhythm and emotion
- You tend to use emotive language
- You may experience tiredness and letter / number transpositions when work requires much reading and the documents are long and detailed
- You prefer not to see or talk to others under stress; you need quiet time to re-evaluate and assess the situation
- You tend to think before moving physically and making decisions
- You are able to work on your own without external input from others

## **9. *Recommendations***

- When dealing with visual information you prefer to see the big picture before you begin to structure it in an orderly and logical way
- However, when under stress you may struggle to perceive the big picture and you then try to focus on the detail, which can make visual or written information difficult to master
- When accessing auditory or verbal information, you tend to focus on the emotional undertones of the other person's voice, rather than the specifics being communicated especially when stressed
- In a tense situation this may influence you to respond emotionally rather than to what was actually said and may result in your inability to process the details or specifics of the information
- You need to be involved in physical activity to help alleviate stress and tension
- Deliberate time out is important when in stress to plan and consider appropriate action. This will help to improve your own objectivity about the situation or person involved

**Ideal position for you to sit in an audience / lecture:**

Front



## **10. The 12 Intelligences**

Although every individual's *Genetic Brain Organisation Profile* indicates that they are born with potential in some of the 12 intelligences, it does not imply that those in-born intelligences have been developed or are utilised to their fullest extent. Upbringing, schooling and environmental factors will determine which of – and to what extent – the intelligences will come to the fore.

**In-born intelligences exhibited by the HH Profile:**

- Linguistic intelligence – creative
- Visual-spatial intelligence – free design
- Musical intelligence – harmonising and composing
- Bodily-kinaesthetic intelligence – structured
- Naturalistic intelligence
- Interpersonal (social) intelligence – patience and sympathy
- Intrapersonal intelligence
- Spiritual intelligence
- Componential intelligence

**Intelligences requiring structured experiences for development:**

- Linguistic intelligence – factual
- Logical – mathematical intelligence
- Visual-spatial intelligence – structured
- Musical intelligence – technical
- Bodily-kinaesthetic – creative
- Interpersonal (social) intelligence – assertiveness
- Experiential intelligence
- Contextual intelligence

## ***11. Profile strengths***

- You are a keen observer
- You are “do-it” person
- You are optimistic
- You offer enthusiasm
- You champion unity
- You accept people as they are
- You are generous with time
- You link people with resources
- You are sociable
- You understand people are individuals

## ***12. Profile weaknesses***

- You are overly sensitive to visual and verbal feedback from others
- You may agree to tasks without really wanting to perform them
- You may be manipulated by others emotional behaviour
- You have difficulty in being assertive

## ***13. Relationship needs***

- You prefer the power of reward
- You need constant recognition and encouragement
- You need to see and hear love
- You are fraternal and generous to others
- You enjoy a beautifully furnished home
- You are social and spontaneous
- You like a day filled with activities
- You are sentimental and like to please others

## ***14. Communication style***

- You are a straight-forward communicator
- You use a simple and sensitive approach
- You get the conversation going
- You relate today’s situation to people
- You enjoy talking

## ***15. Preferred business setting***

- You like to work alongside dedicated associates
- You enjoy challenge and change
- You enjoy working with and through people
- You prefer flexible guidelines to rigid routines

## ***16. Working in a team***

- You bring in enthusiasm and cooperation
- You offer action and excitement
- You have a “do – it – now” philosophy
- You factor in the needs and application of people
- You support the organisation with vigour

## ***17. Management style***

- You facilitate the interaction of people
- You are attentive to the expectations of others
- You encourage agreement and compromise
- You are a promoter of good will and team work

## ***18. Career indications***

These profiles are the Mother Theresa's and Ghandi's of the world. You should not consider a career where you need to continuously and aggressively supervise and tell others what to do all the time. If you are the cause of seeing or hearing others unhappy you become depressed.

Your career should focus on advising, counselling or assisting others, but let them take the final decision. Also steer away from jobs where you would continuously see and hear the pain of others, as it is difficult for you to remain objective and not take on their emotional baggage.

Various options such as therapies, general medicine, advisory jobs, design careers, junior teaching etc can be considered. Your ability to take a lot of information and create ideas, but then sequence and structure it also makes you an excellent quantitative researcher in areas of natural and human sciences.

### **18.1 Additional career notes**

- Make sure that you get enough time to interact with colleagues and co-workers
- Consider taking a time-management course
- Ask supervisors to be clear about their expectations
- Find time during the day to get outside and do something physical
- Try to find people with complementary strengths to consult with
- Volunteer to help run and/or participate in recreational or socially responsible activities
- Think about where you want to be five years from now and start setting measurable, attainable goals
- Make sure you have a variety of tasks to perform; try to avoid or delegate routine tasks
- Avoid working alone for long periods of time

## ***19. Attaining & maintaining career satisfaction***

It is important to note that there are successful people of all profiles in all occupations. In this section, specific criteria are highlighted which may not have been previously considered in terms of making the most of your career.

### **PROFILE HH: “DON’T WORRY, BE HAPPY”**

#### **19.1 Satisfaction is obtained from a career that:**

- Lets you learn from hands-on experience where you need to find the solutions to problems from gathering all the facts at your disposal and by using common sense
- Lets you get personally involved in the tasks at hand, working directly with clients and customers, out in the field rather than away from the action
- Allows you to work with lots of other people in an active and social environment with variety, fun and spontaneity
- Requires skilful handling of people and conflict; the ability to ease tension in order for groups to work more cooperatively; and the ability to motivate others
- Lets you juggle multiple projects or activities, especially those that allow you to use your aesthetic tastes and sense of design
- Allows you to interact throughout the work day with other easy-going and sociable people who share your enthusiasm
- Lets you work on projects that are of immediate utility and take into account the needs of people around you
- Takes place in a friendly and relaxed environment which is free of political agendas
- Rewards your hard work and good intentions; and where you feel appreciated for your contributions
- Lets you have fun, enjoy everyday surprises and where there is a minimum of bureaucracy, rules and restrictions

#### **19.2 Work-related strengths may include:**

- Lots of energy and enjoyment of being active on the job
- An ability to adapt well to change and to shift gears quickly
- Sensitivity to people’s needs and the desire to help them in real ways
- Caring nature – you are a cooperative team player
- An ability to make work fun and exciting
- Practicality and great common sense
- Loyalty to the people and organisation you care about
- Process oriented approach – you create a lively and fun atmosphere at work
- Flexibility and willingness to take calculated risks and try new approaches
- The desire to cooperate and pitch in to help people in concrete ways
- The ability to clearly assess current resources and conditions and immediately see what needs to be done

**19.3 Work-related weaknesses may include:**

- Difficulty working in alone, especially for long periods of time
- A tendency to accept things at face value and miss deeper implications
- A dislike of advance preparation; you have difficulty managing your time
- Difficulty seeing opportunities and options which don't exist at the moment
- A tendency to take criticism and negative feedback very negatively, which may prevent you from learning from your mistakes
- You may experience trouble in making decisions
- Impulsiveness and the tendency to be easily tempted or distracted
- A dislike of excessive rules and overly structured bureaucracy
- Some resistance to setting long term goals and difficulty meeting deadlines
- Difficulty in disciplining yourself and/or others

**19.4 Pathways to success:**

Use your strengths to:

- Establish a rapport and sell yourself
- Use your common sense and your ability to adapt to turn unexpected problems into opportunities
- Demonstrate a willingness to compromise
- Use your keen powers of observation and your ability to get others to talk
- Conduct lots of informational interviews, drawing on your extensive network of friends and associates

**20. Summary**

The HH Profile is outgoing, easygoing, accepting, friendly and fond of a good time. You enjoy sport and making things. You always seem to know what's going on and you join in eagerly.

You find remembering facts easier than mastering theories and are at your best in situations that require common sense and practical ability with people as well as with things.

You enjoy organising and running activities and you tend to be very good at this, as long as emotional behaviour of others does not arise and throw you off track.

Live your outer life with more feeling, your inner life with more intuition.

*Born to be different!*

Yours sincerely  
Dr Annette Lotter



## ***Appendix: The 12 Intelligences***

The IQ test as we know it today grew out of the work of French Psychologist Alfred Binet, who, in the early years of the 20<sup>th</sup> century, devised a test to identify children, whose learning problems required remedial education. Lewis Terman at Stanford University standardised it to take population norms into account and the test became known as the Stanford-Binet. Terman later incorporated psychologist William Stern's notion of an intelligence quotient. In simple terms, IQ as it is universally recognised, is an individual's mental age, as determined by intelligence testing, divided by the person's chronological age – and the ratio multiplied by 100.

Over the years it has become the standard measure of intelligence while provoking fierce, passionate debate among academics, educators, and the lay public.

There is little doubt that IQ tests are reasonably good at assessing and predicting a pupil's school performance, "... but since intelligence is defined operationally as that which intelligence tests test, the test makers are *"chasing their own tail"*, declares Michael Gazzaniga, director of the Division of Cognitive Neuroscience at Cornell University Medical College.

In other words: intelligence tests measure the ability of people to do well in intelligence tests.

Typically, the IQ test predominantly measures an individual's ability with linguistic and logical-mathematical challenges as well as some visual and spatial tasks.

Enter Harvard professor of education Howard Gardner.

Gardner came up with his *"Theory of Multiple Intelligences"*, which says, in effect, that IQ should not be measured as an absolute figure in the way height, weight, and blood pressure are. It's a crucial blunder, he maintains, to assume that IQ is a single fixed entity that can be measured by a pencil-and-paper test.

*It is not how smart you are, but **how you are smart!*** This also implies that intelligence can vary in different contexts.

In arriving at his theory Gardner embraced ideas from a wide range of disparate sources. Gardner analysed studies of child prodigies, gifted individuals, brain damaged patients, idiots, normal children, normal adults, experts in different lines of work, and individuals from diverse cultures.

In arriving at his theory Gardner embraced ideas derived from neurobiology, complemented by fields such as psychology, anthropology, philosophy, and history.

### **1 Linguistic intelligence:**

The ability to read, write and communicate with words. Authors, journalists, poets, orators and comedians are obvious examples of such people.



**2 Logical-mathematical intelligence:**

*The ability to reason and calculate; to think things through in a logical, systematic manner.*

These are the kind of skills which are highly developed in engineers, scientists, economists, accountants, detectives and members of the legal profession.

**3 Visual-spatial intelligence:**

*The ability to think in pictures, to visualise a future result.*

To imagine things in one's mind's eye. Architects, artists, sculptors, sailors, photographers and strategic planners normally have this type of intelligence. People use it when they have a sense of direction, when they navigate or draw, or when they develop from mind ideas or flowcharts and find new ways of presenting ideas and things.

**4 Musical intelligence:**

*The ability to make or compose music, to sing well, or to understand and appreciate music, to keep rhythm.*

This is a talent obviously enjoyed by musicians, composers, and recording engineers. But most people have a basic musical intelligence that can be developed.

**5 Bodily-kinaesthetic intelligence:**

*The ability to use one's body skilfully to solve problems, create products, or present ideas and emotions.*

Obviously this is ability for athletic pursuits, artistic pursuits such as dancing and acting, or building and construction. One can include surgeons in this category, but many people who are physically talented – “good with their hands” – don't recognise that this form of intelligence as being of equal value to the others.

**6 Naturalistic intelligence:**

*The ability to recognise flora and fauna, to make other consequential distinctions in the natural world, and to use this ability productive.*

For example: hunting, farming, or biological science. Farmers, botanists, conservationists, biologists, environmentalists and zoologists fit into this category.

**7 Inter-personal (social) intelligence:**

*The ability to work effectively with others, to relate to other people and display empathy and understanding, to notice their motivations and goals.*

This is a vital human intelligence exhibited by good teachers, facilitators, therapists, politicians, religious leaders, and salespeople.

## **8 Intra-personal intelligence:**

*The ability for self-analysis and reflection.*

To be able to quietly contemplate and assess one's accomplishments, to review one's behaviour and innermost feelings, to make plans and set goals, to know oneself objectively. Philosophers, counsellors and many peak performers in all fields fit into this category.

## **9 Spiritual intelligence:**

*The ability to appreciate and accommodate views and opinions from people of other spiritual denominations.*

Gardner admits that the mental abilities most valued in the western world are linguistic and logical-mathematical intelligences. Gardner notes, however, that the importance of these nine intelligences has shifted over time, and varies from culture to culture. In a hunting society, for example, it is a lot more important to have extremely good control of your body (bodily-kinaesthetic intelligence) and know your way around (spatial intelligence) than to add and subtract quickly. In Japanese society, the ability to work cooperatively in groups and to arrive at joint decisions (interpersonal intelligence) is highly valued. Whereas schools in the first 50 years or so of this century focused on linguistic and mathematical skills, Gardner (1983) speculated that linguistic abilities would become less important in schools in the near future as logical-mathematical abilities become more important related to technological and IT development.

The point is, while both logical-mathematical and linguistic intelligences are important today, it will not always be that way. Hence, Gardner's argument is that we need to be sensitive to the fact that what is valued as far as "intelligences" is concerned is changeable, something we need to keep in mind as we plan curricula and teach students. Annette Lotter (1985) has offered a view of mental abilities that questions the common assumptions that "smart is fast". This assumption underlies the overwhelming majority of IQ and aptitude tests, but is one that overlooks the evidence suggesting that smartness is not always associated with quickness.

First, it is well documented that a reflective rather than an impulsive style of problem solving tends to be associated with higher ability to solve problems (Baron 1982). Jumping to conclusions without adequate reflection can lead to false starts or erroneous thinking. How often, for example, do our snap judgments turn out to be poor ones, if not wrong ones? Yet, the vast majority of intelligence tests are timed, which forces the taker into an impulsive mode.

Second, research suggest that persons who are more highly intelligent tend to spend relatively more time than less intelligent persons on global, higher-order planning, and less time on local, problem-specific planning (Mulholland, Pellegrino, and Glaser 1980, Lotter 1981). Brighter people tend to be more reflective in their efforts to understand the terms and parameters of a problem the do less bright ones, something that takes more time, not less.

Finally, in a study which individuals were free to spend as long as they liked in solving insight problems, quite a high correlation, .75 (1.00 is a perfect correlation), was found between time spent on the problems and measured IQ (Lotter and Walpy 1982). These findings suggest that more able individuals do not easily give up when confronted with problems, and that persistence and involvement are highly related not only to successful outcomes, but to higher IQ's. For Dr

Lotter, the critical aspect of what constitutes “intelligence” is not necessarily the speed with which one arrives at a solution, but the processes one uses to get there.

Thus, Lotter, (1985) also suggests a “triarchic theory of intelligence” in agreement with Sternberg, based on research centring on the influence of context, upbringing and environment (1983 – 1985). This is a point of view that says there are different ways to be smart and that processing information quickly does not mean it was done accurately or correctly. Sternberg (1985) theorised that there are three aspects of intelligence: componential, experiential and contextual.

## **10 Componential intelligence:**

*The ability to reason logically and objectively.*

Componential intelligence is that facet of people’s mental ability that enables them to reason logically, to think analytically, to identify connections among ideas, and to see various aspects or “components” of a problem. It is the type of intelligence typically associated with people who do well on achievement and IQ tests. People with high componential intelligence might do quite well on multiple-choice or true-false tests, and might be especially skilled at critiquing and analysing arguments. This is one kind of intelligence, but not the only one. As observed by Lotter: “Many people are very good analytically, but they just don’t have good ideas of their own”.

## **11 Experiential intelligence:**

*The ability to think and solve challenges with new and ingenious solutions.*

Experiential intelligence is a facet of mental ability associated with a person’s capacity to combine disparate experiences in insightful ways. People high in this type of intelligence may not have the best test scores, but they are able to come up with creative and ingenious ways for seeing new combinations and possibilities in the world around them.

Lotter concluded from her research that experiential intelligence consists of three types of insight: selective encoding, selective combination and selective comparison. Experiential intelligence then is the capacity to not only make sense of our own experiences, but to reorder, recombine, and reinterpret our experiences in new and possible creative ways.

## **12 Contextual or practical intelligence**

*The ability to use practical common sense in solving challenges.*

People use this type of intelligence in the context of their external world. It is one’s practical intelligence or common sense, which might be loosely be defined as all of the really important things they never teach you in school. In Lotter’s view, there are many people who do not do particularly well on tests, but who are extremely intelligent in a practical sense. Although this kind of intelligence does not fit the usual academic world, it is nevertheless intelligence, and as such, Lotter feels it should be considered along with all other expressions of human mental abilities.