



# ***Genetic Brain Organisation Profile***

CONFIDENTIAL

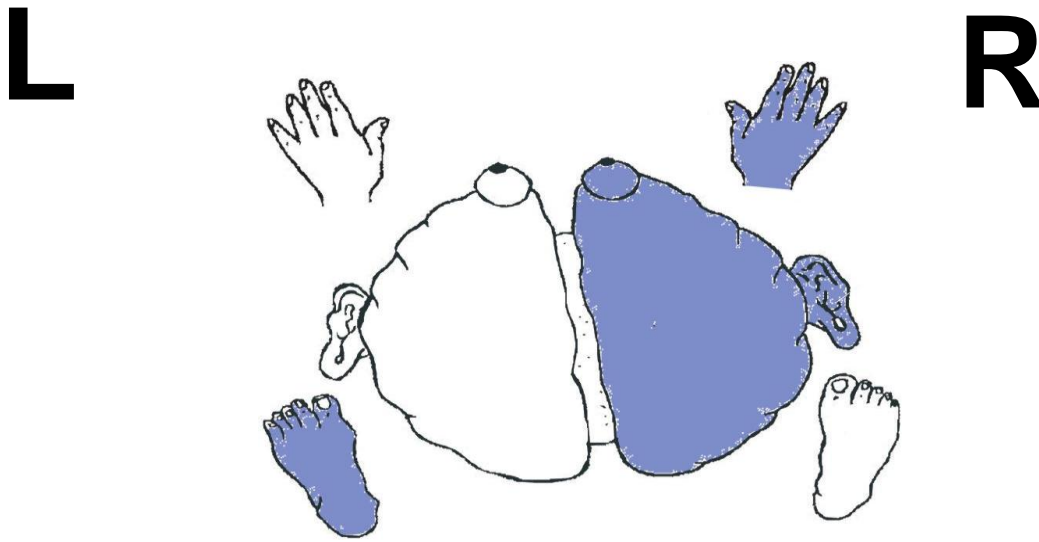
Web: [www.eduprofile.co.za](http://www.eduprofile.co.za)

© Copyright Dr Annette Lotter. All rights reserved. No part of this document may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of the copyright owner.

## 1. Genetic Brain Organisation Profile

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

**PROFILE LL:** Gestalt/ One-sided



## 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 LL Profile has right brain hemisphere dominance. The sole modality controlled by the dominant hemisphere is the foot. The remaining three modalities, the eye, ear and hand, are controlled by the non-dominant left 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 right hemisphere of the brain.

- Unconscious actions
- Instinctive
- Impulsive
- Simultaneous
- Gestalt
- Auditory synthetic
- Visio – spatial
- Feeling

## **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 right eye. This implies:

- The eye tracks from left to right
- Fine motor movements are satisfactory
- You pay attention to detail
- You prefer linear patterns
- You prefer symmetry
- You prefer to work within systems
- You generally have foresight and plan accordingly
- You are able organise visual information

## **2.3 Ear dominance**

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

- You tend to interpret language literally
- You do not usually pick up the meaning within covert speech
- You remember the detail in conversations and discussions
- Your language tends to be analytical
- You hear the facts, rather than the emotions
- You tend to be an impatient listener
- You are prone to interrupt others or daydream if you feel that they are becoming 'long-winded'
- Breaks sound into small bits
- Hears the melodic line

## 2.4 Hand dominance

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

- Structured verbal communication
- Structured written communication
- You tend to be articulate
- You tend to be organised
- You are able to delegate effectively
- Fine motor co-ordination
- You are likely to consistently process tasks using the same method or procedure

Dominance in the right hand also implies a natural ability for sports which require structured hand techniques. These sports include among others: tennis, golf and cricket. The combination of the right eye / right hand can provide skills for aim-related activities such as archery, shooting in netball or basketball and darts.

The right eye / right hand combination may also lend the LL Profile towards perfectionism in their work.

## 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 LL Profile tend to exhibit the following traits:

- Highly practical
- Systematic
- Individualistic
- Mentally quick
- Committed
- Independent
- Determined
- Visionary
- Self-motivated
- Firm

### 4. ***Overview***

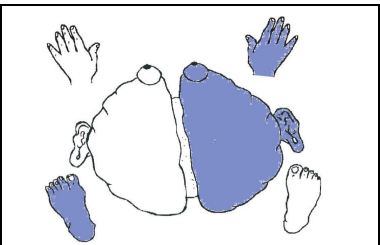
The LL Profile's major characteristics are those of Gestalt functioning, but with full sensory blockages. You most easily process information internally with a minimum of external sensory stimulation. LL Profiles easily see and feel the images which make up the big picture, but can have difficulty in breaking them down to specific verbal pieces which are used to communicate how you are seeing, feeling and understanding.

Within high stress situations, you may experience verbal frustration in explaining yourself. This may lead to the need for physical movement (sometimes spontaneously) in order to re-energise additional modalities.

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

	MODALITY	DOMINANCE
	Brain hemisphere	Right
	Eye	Right
	Ear	Right
	Hand	Right
	Foot	Left

LL Profiles prefer environments with flexibility, allowing higher order thinking and challenge. As the remaining four modalities are functioning from the structured left brain, you are likely to have perfectionistic tendencies.

Your communication is creative and you prefer to perform tasks in a logical, yet innovative manner. You will quickly become bored with rigid routines and lots of repetition. Situations which require routine and repetition, or predominantly left hemisphere cognitive tasks, will lead to boredom and frustration with regard to the lack of freedom and challenge.

Under normal circumstances, you rapidly see and hear detail, and can respond without reacting to emotional undertones and behaviour of other people or situations. This implies your ability to be highly objective in most situations, but it does not mean you are incapable of sympathy or empathy. You will tend to solve problems in a creative manner.

The detail or diagnostic eye implies a natural intelligence for mathematical reasoning and other detailed fields such as science, accountancy, and technical drawing. The tracking of the dominant eye is also from left to right, implying no stress on the eye when reading. If your performance in these areas is poor, it is clear that the transfer of information was spoken and undemonstrated. The more visual the explanation, the better and more rapid your understanding is.

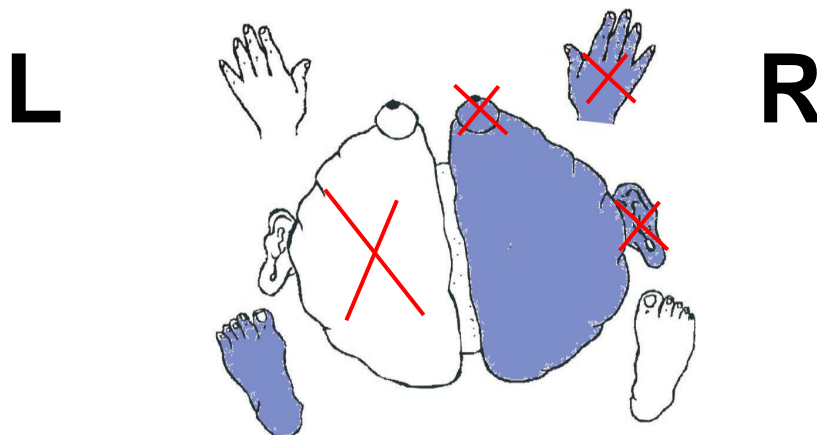
The detail right ear easily becomes bored with long-windedness and therefore requires short, structured interactions with others or else it will lose focus and may be prone to interruption. This indirectly implies your need to work autonomously and for lengthy periods without interference from others.

The expressive hand functions from the structured left hemisphere implying an excellent ability to plan, organise and structure information and processes quickly and easily; while your problem solving skills will be creative and innovative (right hemisphere) and you may prefer to avoid confrontation.

## **6. Stress functioning**

Under stressful conditions, access to the non-dominant left 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 LL Profile, all dominant modalities, except the foot, are controlled by the non-dominant left hemisphere, which implies that their functioning is affected.

The stress profile is visually represented as follows:



Under stress, LL Profiles lose access to both receptive modalities. This results in you seeing and hearing from a more emotional point of view. Any type of emotional behaviour seen in LL Profiles is a good indication that you are experiencing stress. In addition, the time taken to make decisions, and to start or finish work will be more prolonged due to the blockage of the organisational hand.

The blockages of the eye and ear may lead to problems with memory, recall, retrieving information from the left hemisphere, seeing detail in a written form and mathematical calculations. This is because under stress, detail is easily missed. It is common for instructions, briefs or assessment questions to be misread at times like this.

Because your profile experiences three stress blockages (75%), under stress, you may either exhibit overtly passive behaviour, or may become 'hyperactive'. The latter is the fastest way for the body to re-activate energy in the non-dominant left hemisphere and therefore the other four modalities as well.

From an emotional point of view, you prefer complete time-out. Other people may complain that you are rude or abrupt while, in reality, you are unable to see and hear detail around you and therefore do not want to interact with others. Your first priority under stress is to give thorough thought to the issue at hand. Also, be aware that if you experience long periods of stress, your functioning will be limited to short-term memory.

If you are forced to respond under stressful situations rather than being allowed your time-out, you may experience difficulty expressing yourself (the hand is blocked) and it is possible that you will then exhibit spontaneous physical movement. This is a natural inclination for the body to attempt to alleviate the blockages due to the stress. Unfortunately, this could lead to unfair labeling of you by others in terms of hyperactivity and concentration problems.

## **7. *Barriers***

- Emotional outbursts of others frustrate you
- Too many repetitive and predictable work experiences
- Lack of intellectual challenge
- Being bored
- When stressed and thus unable to function effectively
- Possible unfair labeling
- Physical movement not being allowed or being inappropriate
- Having to listen patiently for long periods

## **8. *Implications***

- You see and hear information quickly, leading to frustration during interactions with others
- Because of the need for cognitive challenge, you tend to leave things to the last minute; you work well under pressure
- The dominant eye reads from left to right which implies no stress or dyslexic tendencies
- Try to avoid predictable and repetitive tasks
- You become bored when involved with administrative functions; you may be seen to be arrogant or obstinate



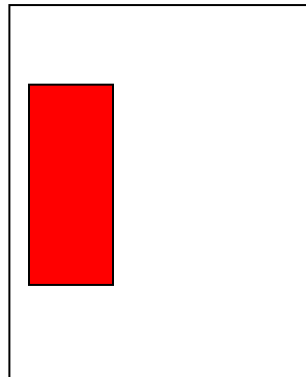
- The intra-personal modalities always available; you are always self assured and less affected by emotional behaviour of others
- You may easily become frustrated as others do not grasp information as fast as you
- Three of the dominant four modalities inhibited under stress implying a need for time-out and the possibility of physical movement to re-energise the modalities
- You visualise, feel and understand whole images, but may experience difficulty seeing, hearing or communicating the specifics
- You are best able to see, hear and write the details when the context is provided
- You benefit from alone time to withdraw into your creative mind
- You prefer to work on your own or in a position of leadership instead of as a sub-ordinate
- You appreciate examples, metaphors and associations when problem solving
- Your movements will tend to be graceful and spontaneous under normal circumstances. You are able to move with good form and precision in linear sports and dance

## **9. *Recommendations***

- When dealing with visual data, you are able to grasp and interpret written and pictorial information and conceptualise best by understanding the big picture and the context
- Under stress though, you may have difficulty breaking down the details into logical and sequential steps or processes
- In a relaxed state you are able to hear and interpret the details and sequence of information, and enjoy metaphors and imaginative examples when problem solving
- You are able to use movement to anchor information and your actions tend to be spontaneous and relaxed as you move, touch and manually explore in order to organise, integrate and express what you have learned
- You prefer to imagine the end result and then work backwards in order to solve problems rather than following prescribed steps or instructions
- In a relaxed state you easily communicate the details and sequence of information verbally, in writing or through gestures and body language
- Under stress, however, you may feel clumsy and stuck and have difficulty communicating because you find it difficult to break the whole picture into linear detail in order to express it
- When stressed be aware that you are at a disadvantage. This is because of the loss of access to three of your four functioning components, eye, ear and hand, which implies difficulty in assessing auditory visual information and then communicating it
- Under stress you may become caught up with the big picture and completely unable to see, hear or deal with the specifics
- However, when you are relaxed, you are easily able to integrate the big picture and the details and handle left and right brain functions better than other profiles
- You may find that you function best by being alone and processing information internally without external visual, auditory or kinaesthetic stimulation or input
- You should sit on the left side of an audience

**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 LL Profile:**

- Linguistic intelligence – factual
- Visual-spatial intelligence – structured
- Logical mathematical intelligence
- Musical intelligence – technical precision
- Bodily-kinaesthetic intelligence – structured
- Naturalistic intelligence
- Interpersonal (social) intelligence – unemotional and objective
- Intra-personal intelligence
- Spiritual intelligence
- Componential intelligence
- Experiential intelligence
- Contextual intelligence

**Intelligences requiring structured experiences for development:**

- Linguistic intelligence – creative
- Visual-spatial intelligence – free design
- Musical intelligence – harmonizing and composing
- Bodily-kinaesthetic – creative
- Interpersonal (social) intelligence – patience and sympathy

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

- You take on difficulties
- You are self confident
- You are a born re-organisier
- You like room to improve
- You are original
- You have design / concept skills
- You are naturally decisive
- You are self disciplined
- You value others' input, but will use it selectively
- You get projects moving

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

- You see and hear information quicker than the most
- You are impatient
- You get irritated with other people's emotional behaviour
- You are very competitive and achieving
- You do not like to lose

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

- You get tired and frustrated if forced to continuously provide emotional support
- You combine business with pleasure
- You seldom leave leisure to chance
- You promote independence in children
- You prefer well planned activities

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

- You communicate with specific purposes in mind
- You know if people see it they will understand it
- You collect information visually
- You use logical structure
- You are detached and factual

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

- You like intellectual challenge
- You need private time for reflection
- You require a certain amount of autonomy
- You prefer a free hand to make your own decisions
- You want efficient systems and procedures

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

- You push to remove obstacles
- You have organisational vision
- You implement new ideas
- You simplify overly complex tasks and procedures
- You are able to systemize goals

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

- You conceptualise and design work models
- You organise ideas into action plans
- You are tough-minded and decisive
- You instill drive in yourself and others to attain goals
- You plan strategies for new projects

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

LL Profiles should consider any career where specialist critical thinking and innovative ideas can be utilised.

You need to be aware of the issues and implications related to the “just-in-time” component of your profile. The upside is that this indicates that your career needs to be challenging and unpredictable or else you will move on to find the change and excitement that you crave. If possible, multi-skilling in a specialist area is advised.

Because your profile matures faster than many others, your challenge is to find a career where you will receive the intellectual challenge and stimulation that may be lacking in relationships with other people your age. Other people need to understand that you can work alone without needing interference from or interaction with them.

Consider high profile careers such as judges, advocates, strategic advertising, medical trauma, industrial psychology and engineering. You need to aim high and steer away from lower levels of functioning or positions which continuously require you to be submissive. Bear in mind that interactions with others should be kept to short, structured sessions during which you either gather information or give feedback; avoid interacting with others on an emotional basis.

The LL Profile is often summed up by saying “You are alone and still too many”.

### **18.1 Additional career notes**

- The intellectual challenge that is critical for your profile is available in abundance in the high-tech and growing fields of pharmaceutical research and telecommunications security
- The continually changing environments of investment and international banking can make use of your global perspective and long-range planning ability
- Technical fields may appeal to your interest in logical systems. Such fields offer an opportunity to work with rapidly developing high-tech equipment and products.

- Your creativity could be used to develop ingenious new systems
- If you consider education, higher education is more suited to your profile than primary or secondary, as it usually involves teaching complex theories and systems with a more global perspective
- Developing extra-curricula or educational systems could also make use of your ability to improve effectiveness and efficiency
- The appeal of creative occupations is the ability to do original work
- The more technical fields of medicine are areas in which you may find success and satisfaction. These fields involve highly complex systems and allow you to work independently, with a minimum of external intervention or input
- Professional careers are wise choices for your profile as they require independent research and planning. The development of strategies, systems and long-term plans requires future-orientation and utilises your ability to plan how goals can be achieved in a logical and sequential manner
- You prefer an environment where the staff is output driven and does not need a lot of hands-on supervision or support

## ***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 LL: “COMPETENCE + INDEPENDENCE = PERFECTION”**

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

- Lets you create and develop original and innovative solutions to problems in order to improve existing systems
- Allows you to focus your energy on implementing your ideas; working in a logical and orderly way and in a setting that will reward your perseverance
- Lets you work with other conscientious people whose expertise, competence and intelligence you respect
- Gives you credit for your original ideas and allows you to maintain authorship and control over their execution
- Allows you to work independently but with periodic interaction with a small group of intellectual people in a smooth-running environment that is free from inter-personal squabbles
- Exposes you to a steady stream of new information, providing you with new ways to improve your efficiency and competence
- Allows you to create a product which meets with your own high standards of quality rather than with the personal likes or dislikes of others
- Does not require the execution of factual and detail-oriented tasks
- Provides you with a high degree of autonomy and control, with the freedom to effect change and develop people and systems

- Judges by uniform and fair standards for all, where performance evaluations are based on established criteria, rather than on personality; and that compensate each person fairly, based on their contribution

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

- An ability to focus and concentrate deeply on issues
- An ability to see possibilities and implications
- Enjoyment of complex theoretical and intellectual challenges
- An aptitude for creative problem solving; the ability to examine issues objectively
- Single-minded determination to reach your goals, even in the face of opposition
- Confidence in and commitment to your vision
- Strong motivation to be competent and to excel
- An ability to work well alone; you are independent and self-directed
- High standards and a strong work ethic
- An ability to create systems and models to achieve your objectives
- Comfortable with technology
- Logical and analytical decision-making skills
- Decisiveness and strong organisational skills

## **19.3 Potential blind spots may include:**

- Attend to all necessary facts, not just to the new and novel ones
- Use tact and diplomacy in getting others to buy your ideas
- Avoid appearing arrogant and condescending to potential employers
- Try to remain flexible and open-minded when making decisions

## **19.4 Work-related weaknesses may include:**

- A loss of interest in projects once the creative process is complete
- The tendency to drive others as hard as you drive yourself
- Impatience with others who are not as quick as you are
- Difficulty working with or for others whom you consider to be less competent than yourself
- Your lack of tact and diplomacy, especially when you are under pressure
- A lack of interest in mundane details
- Inflexibility about your ideas
- A tendency to want to improve things that do not need improving
- A tendency to be too theoretical and to ignore practical realities
- A tendency to not adequately appreciate and praise employees, colleagues etc
- Reluctance to re-examine issues that were already decided
- A propensity to over-emphasise work life to the detriment of home life
- Impatience with 'social niceties' which are required by some jobs

**19.5 Pathways to success:**

Use your strengths to:

- Anticipate trends and forecast future needs
- Synthesise information
- Create your own career options by designing your own job
- Develop an innovative career plan
- Make decisions
- Consider practical realities, recognise the value of input from others and balance work and home life. Slow down, relinquish some control and take things less personally!

**20. Summary**

The LL Profile generally has an original mind and great drive which you tend to use only for your own purposes.

In fields which appeal to you, you have power to plan, organise and complete most tasks, with or without help.

Often stubborn, skeptical, independent and critical, you must learn to yield the less important points in order to win the most important point. In other words: sometimes you need to come second in order to win.

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-kinesthetic 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-kinesthetic 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 curriculums 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 centering around 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 analyzing 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.