

Multiple intelligences: what they are and how creative thinking techniques can help you develop them

Some people do better in adult life than they do at school. This is usually accepted as just the way things are, or just how life pans out for some people. A famous example is Winston Churchill. He did not do that well at school, but when given the opportunity to express himself using his own words and actions he became an exceptional man.

Think about your own experiences or the experiences of others you may know. Have you or they ever struggled with something for a significant amount of time, but then because of a change of approach or thinking, or because something has been done physically rather than just talked about, the problem has been clarified, understood and addressed?

Creative solutions to problems occur when we are encouraged to look at things differently, or we hear a new insightful voice describing or explaining things differently, or we just decide to roll our sleeves up and physically immerse ourselves in the issue. We do not always appreciate, however, that each time we do these things we are engaging and using different parts of our brains.

At each given moment our brains are taking in and seeking to make sense of a great many things, and how well we do this is generally accepted to be an indicator of our level of intelligence. If we give this some thought, it becomes clear that intelligence must be a very wide and all embracing concept. We have to make sense of our physical environment, of what we see, hear and smell. We need to make sense of how we feel and also of how others may feel. We have to comprehend complex problems that are presented to us and then work out solutions to them. All of these different challenges require us to use our brains in different ways, to use different types of intelligence, to tap into what have become known as multiple intelligences.

This article will describe the concept of multiple intelligences and show how each of us can develop them.

What are multiple – intelligences?

Howard Gardner introduced the concept of multiple intelligences during the early 1980s.¹ Gardner argued that in order to appreciate fully the nature of human intelligence it needed to be perceived in a much wider, holistic way than had been the case previously. Most of us are familiar with the puzzles and problems associated with traditional IQ tests. For Gardner, these tests attempted to measure one narrowly defined type of intelligence, centred mainly upon logical/mathematical thinking. Taking a wider view of intelligence, embracing more fully the various ways in which our brains comprehend things, Gardner identified the following additional intelligences:²

- Bodily – Kinaesthetic
- Interpersonal

¹ See Howard Gardner's book 'Frames of Mind: The Theory of Multiple Intelligences' (1983)

² Descriptions of the various intelligences and the criteria for identifying them are outlined in his book and summarised at http://en.wikipedia.org/wiki/Theory_of_multiple_intelligences

- Linguistic
- Logical – Mathematical
- Naturalist
- Intrapersonal
- Spatial
- Musical

Bodily – Kinesthetic intelligence is about moving and doing. People high in this type of intelligence are good at sport and other physical pursuits. They may also like to build or make things.

They will have a well – developed ability to build muscle memory. This means they will remember things through specific movements and actions rather than through verbal or visual memories. Concert pianists and other musicians develop their muscle memory when they practice and memorise pieces of music.

Interpersonal intelligence is about interaction with others. People high in this type of intelligence are good at engaging with other people and being sensitive to their feelings, moods and motivations.

Linguistic intelligence is about use of words, spoken and written. People high in linguistic intelligence are good at reading, writing and telling stories. They will remember things through verbal memory and will have a strong ability to recall specific words and dates.

Logical – Mathematical intelligence about logical reasoning, analysis and dealing with numbers. People high in this intelligence are good at traditional IQ tests and are able to recognise abstract patterns and combinations. They are good at scientific, rational thought and feel comfortable with numbers and undertaking complex calculations.

Naturalistic³ intelligence is about nature and nurture. People high in this type of intelligence are very aware of their natural environment, how they interact with it and how it may change; they may be very sensitive to potential variations in the weather. They are good at growing things and interacting with animals.

Intrapersonal intelligence is about self – reflection and self – awareness. People high in this type of intelligence are very aware of their own emotions, needs, goals and motivations. They like to think through issues by themselves. Great philosophers tend to be high in this type of intelligence.

Spatial intelligence is about visualisation and spatial judgement. People high in this type of intelligence have very good visual memory and are adept at mentally manipulating objects. They also possess a good sense of direction.

Musical intelligence is about rhythm, music and hearing. People high in this type of intelligence display sensitivity to sounds and may work best with music playing in the background. They may also like playing a musical instrument. As listening is a strong component of this intelligence, they usually process new information best by listening to an audio – recording or attending a lecture.

³ Naturalistic intelligence was added to the multi – intelligences theory in 1996. It is not as widely accepted as the other intelligences because it does not conform so easily to the criteria Gardner set for defining an intelligence. For example, there does not seem to be a definable part of the brain responsible for naturalistic abilities.

Gardner believes that we usually have a preference for using one or two of the above intelligences, but that we can develop our abilities in all the others.⁴ This is fundamentally different to the traditional approach to intelligence that focuses mainly upon logical – mathematical thinking (with perhaps a dash of visual/verbal thinking), and seeks to identify a set IQ level that can not be significantly improved or developed through an individual's efforts.

So, perhaps the two most important aspects of the Multiple Intelligences Theory are:

1. Its widening of the concept of intelligence to include all the ways in which we make sense of our world and the information presented to us.
2. Its assertion that each intelligence can be developed.

Once embraced, these two aspects can be very influential in helping each of us adopt a positive attitude towards developing our ability to think about, understand and address the issues and problems we face. They encourage us to comprehend things from many different perspectives: how something looks, sounds and feels; how others see things; how they affect us personally; how they can be described differently; the logical patterns or combinations that can be identified; how the environment that surrounds an issue may be affected. We are stimulated to develop the versatility of our brains, to realise the potential of what may have been previously unappreciated abilities.

How creativity techniques can help us develop our multiple – intelligences

As well as enabling us to find new and innovative ways to address the problems we face, creative thinking techniques also have the ability to help us develop the capacity of our brains to think in different ways, to make better use of their multi – faceted, multi – intelligent characteristics. We can maximise this ability by thinking carefully about which tools, techniques and approaches are most likely to encourage the development of particular types of intelligence. We can then target their use on the specific intelligences we wish to develop.

The following is a selection of creative thinking tools and approaches categorised according to their ability to help develop a particular intelligence. When looking to enhance an aspect of your multiple intelligence, read through the relevant items and select those that seem most appropriate to your needs and/or the context within which you will use them:

Creative thinking approaches to develop Bodily – Kinaesthetic intelligence

Any approaches that involve touching and moving will help develop this type of intelligence. Try the following:

- Use Post it notes to generate ideas. Then put them on a wall and sort them into categories.

⁴ To find out your own intelligence preferences and obtain some general hints and tips about how to develop your multi – intelligences overall go to www.learning-styles-online.com. This website presents the concept of multi-intelligences in terms of learning styles, but the approach is fundamentally the same.

- Use Post it notes to create flowcharts and Gantt charts that can be physically built up and manipulated.
- Make something physically real by providing a model people can touch, walk around and interact with.
- Make a problem a physical reality by acting out a role – play.
- If drawing pictures or diagrams make them big so that they maximise the amount of movement required.
- Place whiteboards in different locations so that you can catch ideas as you move around.
- Shuffle, play with and select cards from a 'Whack Pack'⁵ to stimulate your thinking.
- Provide stress balls and other tactile toys that people can squeeze and touch whilst they are thinking.
- Rehearse and memorise physical actions such as dance movements to build up your muscle memory.
- Go for a walk or do some other type of physical activity whilst thinking.
- Build models of your ideas with play – dough and other tactile materials.

Creative thinking approaches to develop interpersonal intelligence

Any approaches that involve group interaction and communication will help develop this type of intelligence. Try the following:

- Use role - plays involving interaction between two or more people.
- Use any group brainstorming approaches.
- Use Co counselling⁶ techniques to encourage questioning and listening.
- Put your self in the shoes of others. How do they think and/or feel about the issue or problem?
- Create new opportunities for face to face contact.
- Personalise the problem. How does it affect a day in the life of an individual?
- Build relationships with people who are different, do different things, or do things differently.

Creative thinking approaches to develop linguistic intelligence

Any techniques that involve a significant amount of writing and/or speaking will help develop this type of intelligence. Try the following:

- Describe an issue using different words and phrases.
- Write down others' ideas using your own words.
- Clarify your thinking by speaking your thoughts out loud.
- Find someone that you can speak at rather than to.
- Script out a problem or issue in the form of a play.
- Create acronyms and key phrases to develop your verbal memory.
- Write out your experiences in a personal journal.
- Tell the story of a problem, how it began, how it developed and how it was brought to an end.
- Write down your ideas as they occur to you without self - censorship.
- Read what you have written out loud.

⁵ Creative 'Whack Pack' cards were conceived by Roger Von Oech. They are the same size and shape as traditional playing cards. Each card provides a provocative idea that can be used to stimulate new thinking about a problem. They encourage bodily – kinaesthetic intelligence because they have to be shuffled and played with.

⁶ There are many counselling models that offer a structure for encouraging insightful interpersonal communication. One is included at the end of this article.

Creative thinking approaches to develop logical – mathematical intelligence

Any techniques that involve an analytical approach that breaks things down, build things up or looks for patterns can be used to develop this intelligence. Try the following:

- Ask 'How?' to chunk a problem down and get into its detail.
- Ask 'Why?' to chunk a problem up and obtain its overall context.
- Create process maps of problem areas.
- Identify the positive, effectiveness increasing and negative, effectiveness decreasing attributes of specific products or activities and identify how they can be maximised and minimised respectively.⁷
- Identify the key 'Moments of Truth'⁸ in a service or process, those activities that are critical to its effectiveness, and find ways to enhance them.
- Use consultancy tools such as Forcefield Analysis, PESTLE and SWOT.⁹

Creative thinking approaches to develop naturalistic intelligence

Any techniques that involve producing and nurturing your own and others' ideas will help develop this intelligence. Try the following:

- Use the 'yes and' phrase to develop others' contributions and ideas: 'Yes, and something that would help us apply your idea practically is.....'
- Create mind maps to explore, categorise and develop your thinking about problems and issues.¹⁰
- Look for ways to create new, enhanced ideas from separate, initially unrelated ideas.¹¹
- Produce new ideas by using random objects and words and their various characteristics and associations to stimulate your thinking.¹²

Creative thinking approaches to develop intrapersonal intelligence

Any techniques that encourage self – awareness and reflection will help develop this intelligence. Try the following:

- Keep a journal of your ongoing experiences. Think specifically about what you thought, felt and did in specific situations. What insights does this give you?
- Write a script of a situation you want to deal with well. Take note of what you think and feel as you read through it. What insights does this give you?
- Explicitly notice what you are thinking, feeling and doing whilst others are speaking. Also, mentally note what you find positive, negative and interesting about what they are saying. Ask yourself why this is.
- Practice using the 'Red Hat' thinking associated with Edward De Bono's 'Six Thinking Hats' technique.¹³

⁷ For a more detailed description of attribute listing go to www.creatingminds.org

⁸ For more information about the 'Moment of Truth' technique go to www.creatingminds.org

⁹ To see descriptions of these techniques go to www.mindtools.com

¹⁰ Mind mapping is a technique that mirrors and utilises the organic, radiant, associative thinking of our brains. To find out more about it go to www.imindmap.com or read 'The Mind Map Book' by Tony and Barry Buzan.

¹¹ This technique is called 'Successive Element Integration'. A description of how it works is available at www.mycoted.com

¹² The random objects and words techniques are described at www.creatingminds.org under the headings 'PSI' and 'Random Words'.

Creative thinking approaches to develop spatial intelligence

Any techniques that encourage the visual expression and manipulation of thoughts, ideas and concepts will help the development of this intelligence. Try the following:

- Draw a picture of a problem or issue.
- Create a mind map of a problem or issue.
- Use diagrams and flowcharts instead of words.
- Make visual notes of what someone is saying rather than using words.¹⁴
- Encourage yourself to doodle whilst thinking.
- Whilst note – taking at meetings use pictures and symbols to represent important concepts, or concepts that would take a lot of words to describe.
- Keep a personal sketchbook within which to draw pictures of your ideas.
- Use the cartoon strip¹⁵ approach to ‘draw out’ the story of a problem or process.

Creative thinking approaches to develop musical intelligence

Any techniques that encourage the development of musical awareness, sense of rhythm and hearing in general will help enhance this intelligence. Try the following:

- Use rhythmic rhymes and memorable melodies to memorise information.
- Experiment with adding music to your environment. What types of music help you to relax or concentrate? What types of music stimulate and energise you?
- Immerse yourself in the sounds associated with the situation or subject you are addressing.
- Listen to audio recordings of lectures and books
- Record your own thoughts and ideas and play them back to yourself
- Use participative idea generation techniques that emphasise listening rather than movement.¹⁶

In summary

Intelligence is about our ability to comprehend things.

We do this in many ways, so intelligence is a very wide and all embracing concept.

This is acknowledged by Howard Gardner’s Multiple Intelligences Theory, which states that in order to appreciate fully the nature of human intelligence it needs to be separated into various intelligence types. These are:

- Bodily – Kinaesthetic
- Interpersonal
- Linguistic

¹³ In De Bono’s ‘6 Thinking Hats’ technique, ‘Red Hat’ thinking encourages people to acknowledge and express their feelings and hunches about issues, problems, situations etc. To find out more about 6 Hat Thinking go to www.mindtools.com.

¹⁴ This technique entails making pictorial notes of what someone is saying rather than using words. It encourages the note taker to view (quite literally) what someone is saying in new and challenging ways. It also tends to encourage a greater use questions and, consequently, a deeper exploration of issues, perceptions and meanings.

¹⁵ The cartoon strip approach tells the story of a problem or issue by visually depicting its development frame by frame.

¹⁶ One such technique is the Nominal Group Technique. This minimises interaction and emphasises listening and the acknowledgement and clarification of ideas. Go to www.creatingminds.org for a description of how it works.

- Logical – Mathematical
- Naturalist
- Intrapersonal
- Spatial
- Musical

Most of us are strong in one or two of the above intelligences, but we can all develop our abilities in each of them.

Creativity techniques can help us do this, especially when we know which techniques are best for developing a particular intelligence.

Any creativity techniques involving touching and moving will help the development of Bodily – Kinaesthetic intelligence.

Any creativity techniques involving group interaction and communication will help the development of Interpersonal intelligence.

Any creativity techniques involving writing and speaking will help the development of Linguistic intelligence.

Any creativity techniques involving analysis and pattern recognition will help the development of Logical – Mathematical intelligence.

Any creativity techniques involving producing and nurturing ideas will help the development of Naturalistic intelligence.

Any creativity techniques involving self – awareness and reflection will help the development of Intrapersonal intelligence.

Any creativity techniques involving visual expression and manipulation of thoughts will help the development of Spatial intelligence.

Any creativity techniques that involve enhancing musical awareness, a sense of rhythm and hearing in general will help the development of musical intelligence.

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08.08.08

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THE CO-COUNSELLING METHOD

The issue holder presents their issue/dilemma/problem
(5 minutes)

Others help the issue holder to clarify the issue by using probing questions
(10 minutes)

The issue owner confirms the issue
(2 minutes)

Others analyse the issue and brainstorm possible ways forward
(The issue holder **remains silent**)
(15 minutes)

Others summarise back their main findings to the issue holder
(5 minutes)

Issue holder responds
(5 minutes)

Individual and group reflection on process
(5 minutes)

Extra value can be gained from this exercise if the 'others' take turns to make notes of the issues and ideas as they arise, and then give these notes to the issue owner at the end of the exercise.