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Ways We Learn

Understanding Learning Preferences

NEVILLE CLEMENT

Have you ever come away from a lesson wondering, “Why?” You planned the session well and presented it as best you could, but the “chemistry” just was not there.

Here are a few behaviours from an imaginary class. Can you identify similar behaviours in your class?

Kel fidgets a lot even when the teacher tells him to be still and listen. It doesn't matter how many times something is explained to the class, the teacher has to go and do it with him.

Jane and Sue talk a lot. They are asked to be quiet, and yet in a few moments they are talking again.

Jai won't get his head out of the book. Why won't he just sit there and listen?

There are some in the class who just turn off.

Why is it that some teachers seem to “click” with some children? A class can be terrific for one teacher, yet disruptive for another. Have you ever wondered “WHY?”

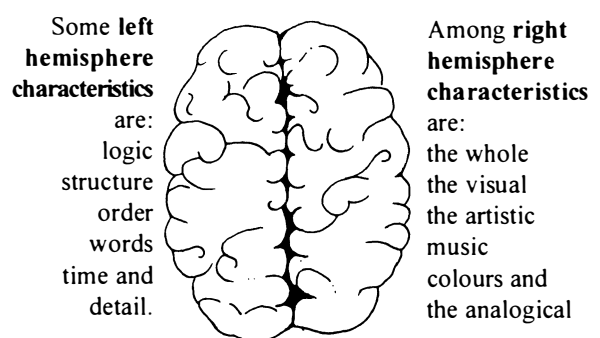
You can probably identify similar behaviours, and more, among the children you teach. Sometimes you can be on the same “wave length” with one class, yet try the same thing with another, and it is like a lead balloon.

Are Kel, Jane, Sue and Jai deliberately trying to be disruptive? Maybe their behaviour is saying something about the way that he or she learns. Each person will give out signals about the way that she or he likes to learn. Every learner has an individual learning style. When students can learn in their own preferred style, learning is less stressful. Teaching becomes easier when a teacher discovers the individual way that each pupil learns. Learning becomes fun when it is joyful and relaxed.

Individuals learn in different ways. A learning style is a strategy for learning a person uses *most* of the time, particularly in times of stress. However, this is not rigid, a person is still able to learn in other ways, depending on the situation. What follows is a very brief outline of some of the different elements in learning preferences. The books in the resource list, at the end of the article, provide greater detail. (A good introduction to learning preferences is in Ward and Daley.)

Characteristics of the Brain

It has been long known that the brain has a right and a left hemisphere. However, the work of the Nobel Prize Winners, Dr Roger Sperry and Dr Robert Ornstein, greatly increased understanding of the functions of the right and left hemispheres.



A Top View of the Brain showing Left and Right Hemispheres

Recent thinking sees these characteristics as belonging to the brain as a whole. Good learning will include characteristics from both lists. Learning that draws on both modes of the brain is called ‘whole-brain’ learning (Buzan, Rose, Ward & Daley, Brewer & Campbell, McCarthy).

Adopt a whole-brain approach to teaching:

- Include the whole range of characteristics.
- Singing is good because it involves words (left mode) and music (right mode). Add actions and there is a kinesthetic element. (See sections on Multiple Intelligences and VAK.)
- Tell a story and illustrate it with coloured drawings or pictures.
- Use coloured chalk or markers when writing or drawing on a board or OHP.
- Stretch the imagination when telling a story.
- Ask the class to mime or act out the story.
- Ask the class to list the facts of a story, recount it in detail and discuss the meaning of the story.
- Give a written set of instructions to be followed.

Trying it out!

Take a lesson, and analyse each of its components in terms of left and right brain characteristics as listed above. Consider the following:

Is there a balance of left and right brain characteristics?

If it is not balanced, what can be done to make it so?

Group Activity: Discuss the questions in clusters of two or three. Each cluster could examine a different lesson from the same unit. Report the findings back to the larger group.

Emotions and Learning

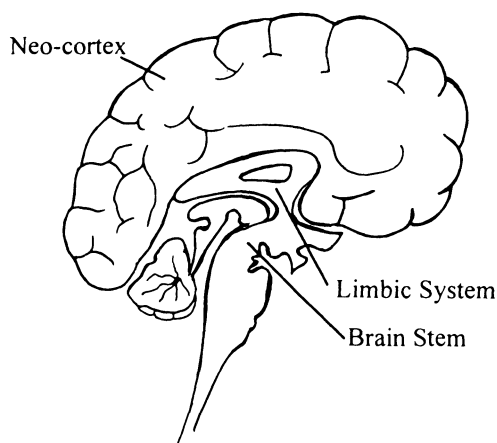
Dr Paul McLean identified three distinct parts of the brain; the Neo-cortex, the Limbic System and the Brain Stem. The Neo-cortex is where most of the thinking takes place. The Limbic System, among other things, is the seat of the emotions. Self-preservation and aggression are some of the functions of the Brain Stem. When an individual is stressed, processing tends to move to the Brain Stem, with the associated behaviours.

The work of Dr Paul McLean has shown that emotion and learning are tied together. Learning best happens in a joyful relaxed environment. Subject matter is best committed

to memory in a relaxed atmosphere. Fear arouses self-protective behaviours which inhibit learning and memory (See Brewer & Campbell).

Use this knowledge to create a good learning environment:

- Create a warm and friendly environment in the classroom.
- Learn the pupils' names.
- Avoid "put-downs".
- If discipline is necessary, focus on the behaviour rather than on the personality.
- Be relaxed and confident.
- Develop a healthy self-esteem and positive presentation. Give positive instructions.
- Negative instructions are more difficult to understand. For instance, it is better to ask a class to be quiet rather than telling the class not to talk.
- Take a positive approach to teaching.
- Develop a positive self-esteem.
- Believe that you are an effective teacher. Be prepared to improve and to accept help from others to do so. Mental attitude is vital for success. After each lesson, think of the things you did well. How did you do it? Apply those principles to other lessons. If there is an area of teaching where you would like to be more effective, seek out people and literature that will help you.
- Accept that all teachers at times have lessons where things go wrong. Learn what you can from a less than desirable situation and plan and pray for better things to happen.



A cross-section of the brain showing the three areas described by Dr Paul McLean.

Trying it out!

1. Practise giving positive instructions.

Write out positive instructions for the following situations:

- A class is involved in an activity and you want their attention.
- A child's behaviour is disruptive.
- You have given the class a sheet with several activities on it. You want them to do one and not the others.
- The class is too noisy and you want them to be quieter.
- One child is rude to another, and you want the children to treat each other with respect.

If you are working in a group discuss your answers in clusters of three or four.

- ### 2. Ask each group member to think of a lesson that went particularly well and to analyse the reasons for the success. Share the stories with three or four others.

Multiple Intelligences

Howard Gardner sees intelligence as being multiple rather than as a single entity. He holds that there are at least seven aspects of intelligence. Each has a physiological base, and is common to all cultures. The multiple intelligences are:

Verbal/Linguistic Intelligence - using words in speaking and writing.

Logical/Mathematical Intelligence - logic, maths, and recognising patterns.

Visual/Spatial Intelligence - visual arts and imagination.

Body/Kinesthetic Intelligence - bodily movement and touch.

Musical/Rhythmical Intelligence - music and rhythm.

Interpersonal Intelligence - relating with others.

Intrapersonal Intelligence - knowing oneself, being aware of one's thoughts and feelings.

A person has each of the intelligences, though individuals have developed the

different intelligences to different degrees. The intelligences are interrelated and work together. A weaker intelligence can be helped and strengthened by the other intelligences.

For instance, a person weaker in Logical/Mathematical Intelligence can learn the times tables by setting them to music, or chanting them (Musical/Rhythmical Intelligence). Learning is more effective when learning stimulates and develops a variety of intelligences (Lazear, Rose & Goll).

In a thirty minute lesson it would be reasonable to expect to stimulate three or four of the multiple intelligences. Some activities will stimulate several. They complement and interact with each other.

- **Verbal/Linguistic** Intelligence is using words, either orally or in reading and writing. Every lesson will involve using words in some way. However, special activities can be planned where students listen to a story, read a passage of Scripture, participate in a class discussion, or do some form of creative writing.
- **Logical/Mathematical** Intelligence can be stimulated with puzzles, solving problems, finding themes in stories, and quizzes.
- **Visual/Spatial** Intelligence is stimulated by pictures, drawings and any visual media in general. Encouraging children to imagine a story as it is told engages on this intelligence.
- **Kinesthetic** Intelligence involves doing things. Craft, drama, mime, dance, and exercise are kinesthetic. Writing is a mild kinesthetic activity.
- **Musical/Rhythmical** Intelligence is stimulated by music and rhythm. Use music, singing, rap, rhymes, and verse. When telling a story vary the tone and volume of your voice.
- **Interpersonal** Intelligence is developed through interaction with others, for example, in group activities, through questions and answers, and by discussion.
- **Intrapersonal** Intelligence can be cultivated by asking learners to think silently about something, asking them how they arrived at a conclusion, or how they did something.

Trying it out!

Look over a unit of work and see if there are activities that stimulate each of the Multiple Intelligences. If not, then consider how you might modify activities to include intelligences that are excluded.

Group Activity: Discuss a unit of work in clusters of two or three, each cluster discussing a different lesson. Collate the findings in the larger group.

Visual, Auditory, Kinesthetic (VAK)

Usually people have a preferred way of perceiving and communicating. Some people are conscious of the visual impact, they like to see and produce visual images. These people have a visual preference. Others prefer to hear and speak, they are more conscious of tonal qualities in the voice. They have an auditory preference. Others prefer to do and touch, they like movement and physical contact. These people have a kinesthetic preference. Some people are fairly evenly balanced between two or three of the preferences, while others may rely almost exclusively on one. It varies from person to person and even situation to situation.

Persons with a **visual preference** will prefer written instructions. Sketches, pictures, diagrams, charts, and colourful pictures will attract their interest. Those with an **auditory preference** will prefer to receive verbal instruction. Variation of intonation and modulation in speech will draw their attention. Individuals with a **kinesthetic preference** appreciate the task being done with them. They like physical closeness and movement.

Most people are sufficiently multi-sensory to be able to receive communication through any three, visual, auditory, or kinesthetic. However, there will be an occasional person who needs to receive communication in his or her preferred way.

Learning is more effective if a variety of senses is used. Not only does this cater for individual learning preferences, but it encourages learners to develop further their less developed senses (Grinder, Rose, Ward & Daley).

Trying it out!

1. Return to the start of the article and identify the behaviours described in the opening paragraphs in terms of VAK. Can you identify similar behaviours among your pupils?
2. Review the sections on Characteristics of the Brain and Multiple Intelligences for ideas on implementing VAK.
3. Take a lesson and analyse it in terms of VAK. Is there a reasonable distribution of VAK throughout the lesson? If not, how can the situation be remedied?

Group Activity: Work through (1) individually and discuss it in the whole group. Remember you are discussing behaviours, not pupils.

Discuss (2) in a large group.

Discuss (3) in clusters of 2 or 3 and report back to the larger group.

Process is Important

Some people need “hands-on” experience to learn, while others can receive the material abstractly, for example, in a book or from a lecture. Some people can read or hear and understand, while others need to see it directly or experience it first-hand. Again this varies according to individuals and the subject matter (McCarthy).

Two components of learning are content and process. Content is the subject matter, and process is the way the content is taught. The effectiveness of learning depends on process. This is why it is important to spend time to master the content and to craft the lesson. Learning is more than accumulating facts. There is the wisdom aspect of taking the facts and transforming them into behaviours.

Since there is a variety of learning preferences, the possible domination of learning preferences is vast. Most individuals are happy if they can learn according to preferences some of the time. Frustration will grow if learners are expected to continually learn in ways other than their preferred styles. Added to this, teachers need to be aware that they naturally teach according to their own learning preferences. Teachers need to make a

conscious effort to cater for a variety of learning styles.

Four parts in the learning process are:

1. Establishing the relevance of the subject for the learner. Why is the subject important? How can the material be related to the experience of the learner? (Note: Learners need to find relevance for themselves, it cannot be provided for them.)
2. The content or subject matter. What is to be taught?
3. Transferring the skill to the learner.
4. The learner takes the skill and experiments and adapts it.

One of the traps is to regard one of the four steps as being more important than the others. It would be easy to think that step two is the most important, and that the others are the icing on the cake. However, effective learning involves each of the four parts. Different learners will enjoy different parts. Learning will be more effective for most learners in different parts of the cycle. In other words, learning will be reduced for some if one of the steps is omitted or passed over too quickly.

In a one or two hour seminar it may be possible to give due weight to each of the components, but rather more difficult in a twenty-five to thirty minute lesson. Therefore, planning may have to be done over a unit of work. In this approach, the first lesson may concentrate more on establishing relevance, and the last on taking and applying the subject matter.

Trying it out!

Take a lesson or a unit of lessons. Analyse them in terms of the four steps.

1. Is there an attempt to establish relevance? How is it attempted? Is it clear enough?
2. What is the content? Is it clearly defined? Answer the question, "What is this lesson about?"
3. How are the skills transferred? List the activities used.
4. Is there opportunity for the learner to apply what is learnt?

Group Activity: Discuss in clusters of two or three and report back to the larger group.

Where is the lesson going?

Give an overview of the lesson before launching into the detail. Let the learners know where you are heading and what you want to accomplish. There are learners who will get lost in the detail if they do not have a framework to which they can relate the detail.

Here are a few simple pointers to help learners:

- Introduce each new unit of work, giving an overall idea of the scope that will be covered.
- As each individual lesson is begun, show how it relates to the rest of the unit.
- Give a brief idea of what the lesson will cover, and the activities that will be done. The purpose will be defeated if the introduction too long or too detailed.
- At the end of the lesson review the significant points. Do the same at the conclusion of a unit.

For seminars:

- Introduce the topic, and give an outline of the way it will develop.
- When an activity is introduced, give an idea of how long it will last, and foreshadow what will follow.
- At the end of the seminar, sum up the main points.

Trying it out!

How will learners know how the detail of the lesson/seminar relates to the whole?

For those teaching regular lessons:

- Take a unit of work and write out the way you would introduce the unit and each of the individual lessons in the unit.

For those leading extended seminars:

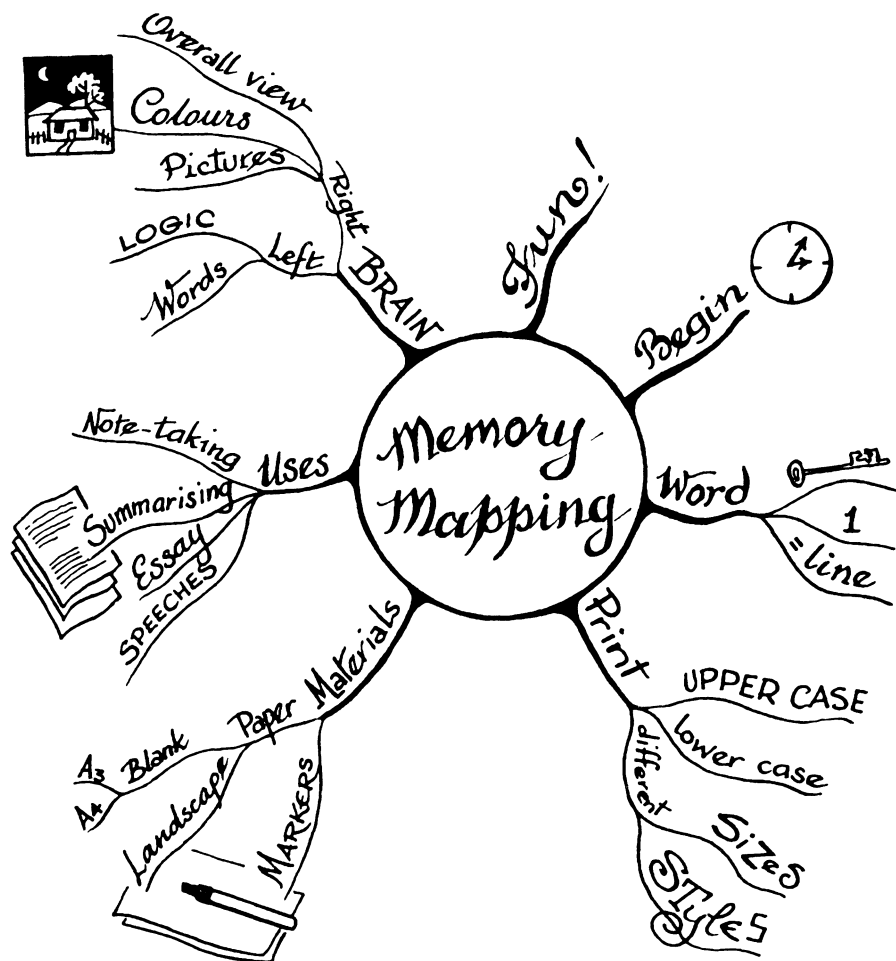
- Write out how you would introduce, lead in to the different activities, and conclude the seminar.

Group Activity: Do the one of the above activities in pairs. Share and discuss the results in the larger group.

Memory Mapping

Memory Mapping is a significant learning tool. It is a simple technique that aids memory. It enables association of ideas and uses whole-brain methods. Memory maps can be used to summarize a lesson as an individual or as a class activity. Applications for this mind tool are limited only by imagination. Here are a few simple steps for creating a Memory Map (see the example below). (Buzan, Margulies, Svantesson, Ward & Daley)

1. Begin with a blank A3 or A4 sheet of paper turned sideways (landscape).
2. Write the topic in the centre, and encircle it.
3. Radiate branches (lines) from the border of the topic and write the main points in these. (It may be helpful to begin at the 1 o'clock position and go clockwise. A good number of main branches is 7.)
4. Write one word per line. Lines should be the same length as the word.
5. Lines at the centre of the map are usually thicker, becoming thinner at the perimeter.
6. Branch lines off the main points for sub-points, etc. The only limit on the number of extensions is the size of the paper. If space is a problem get a larger sheet of paper.
7. Print the words. Use UPPER CASE and lower case.
8. Vary the size of the letters.
9. Use key words or logos to recall the detail.
10. Use colours.
11. Draw pictures.
12. Redo the map if you can see there is a better way of doing it.
13. Maps are individual - each person has a different style.
14. It is the effectiveness of the map as a memory aid or planning tool that counts.
15. Have fun!



Trying it out!

Make a memory map of this article, a section of the article or other articles in the book. Use memory maps as an aid to lesson preparation. Make a memory map of a story you want to tell, or a lesson, or things that you need to do.

Summary

1. Behaviour can be a clue as to learning preference.
2. Whole-brain learning seeks to use all of the brain's characteristics.
3. Learning can be joyful and relaxed.
4. Intelligence is multiple.
5. Learning needs to utilize Visual, Auditory and Kinesthetic senses.
6. Process is as important as content.
7. Memory Mapping is a significant learning tool.
8. Full-orbed learning will include all of the elements outlined. They are not a list of options. Taking advantage of the God-given human potential will mean that learning will be joyful and effective.

This brief survey is only a start. Link the information with other articles in the book which describe some skills and practices in greater detail. Refer to the list of resources to fill out the many details.



Resources

- Brewer, C & Campbell, D (1992) *Rhythms of Learning* Hawker Brownlow Education. Australia.
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- Vitale, B (1982) *Unicorns Are Real* Jalmar Press. California.
- Ward, C & Daley, J (1993) *Learning to Learn* A&H Print Consultants. Christchurch, New Zealand.