

MODULE 14

SIX INSIGHTS ABOUT THE BRAIN

Segment	Content
Introduction	<p>Imagine being on a road trip. Rather than using a trusty GPS, you are trying to navigate with only a road map. Now imagine that while the road map has every possible road recorded; it is all in black and white. That’s going to be a difficult navigation. Now imagine a road map, where different roads are shown in different colours and the smaller insignificant roads are not even reflected on the map at all. The first map was difficult to navigate through because there was so much clutter, and everything seemed to have the same emphasis and importance. The colour-coded map added distinguishing features and eliminated some information all together. This illustration is similar to how the human brain learns a new skill. Your brain must sort through the steps needed to carry out the new actions, and when everything looks the same, (like with the black and white road map,) the route can be difficult to map out. In contrast, the second map is much easier for the brain to use and sort through, because the steps needed to carry out the new action are clearly highlighted, thus making the route easier to discern. Likewise in the brain, once a skill has been routed and learned, the map of what actions to take is easier to discern. Learning how to ‘map’ your brain is the focus of this module.</p>
Learning and development objective	<p>At the end of this module, you should be able to describe six different insights about the brain and relate these insights to your role as a leader.</p>
Main text	<p>6 Insights about the Brain</p> <ul style="list-style-type: none"> <p>▶ We think in maps. As you are exposed to new ideas, new images, new thoughts, new skills, and new processes, your brain begins to map these together. Although this is not a literal map drawn on the surface of your brain, it is a multi-dimensional string of ideas which are placed together, as in a network. As your brain tries to make sense of new information it is processing, it corrects the order and adjusts the way it organizes the data. These maps eventually lead to hardwiring. Armed with this knowledge, you can create more effective and dynamic presentations to your team and others, whom you are seeking to influence. Since you know your team will ‘map’ the information provided, present the information to them in a logical order which will provide them a tentative ‘road map.’ Using a logical presentation, you assist your team by setting out the information (as in the illustration with the coloured map where you highlight the most important aspects,) and provide a format, so that your team will think about the new information in a specific order or method. Providing a road ‘map’ for your team, will assist them in learning ‘what’ and ‘how’ the new skills are to be learned, which will enable them to learn faster.</p>

- ▶ **Up close, no two brains are alike.** No two brains are alike. Each brain is different, because each person has had different life experiences, which have become ‘mapped’ and ‘hardwired’ in their brain. Research on the brains of deceased mathematicians and musicians, show areas of their brains which are significantly larger, than those of deceased authors and artists. While deceased authors and artists, have enlarged areas of their brains, not seen in the brains of deceased mathematicians and musicians. Different parts of a person’s brain are used more regularly, depending on that person’s interests, talents, and skills. As a person increases their abilities in specific areas, those parts of the brain will be affected and enlarged. As a leader, you must be cognizant of this. Since no two brains are alike, you cannot expect everyone on your team to learn or perform in the same way.
- ▶ **We hardwire everything we can.** When the brain is learning a new skill, habit, or task, it relies on the brain’s ‘working memory,’ which is located in the prefrontal cortex. This working memory is limited in how much information it can handle at one time. As a result, the brain ‘hardwires’ the new skill, as quickly as possible, and pushes it down into ‘long term memory.’ When this happens, the new skill or task can be done on ‘automatic.’ Remember when you first learned to play a musical scale on an instrument. When first learning, you had to think of every note, but eventually, with practice, you were able to play scales with little thought. The scale had moved from your working memory while you were learning, until it became hardwired into your long term memory. Once the hardwiring occurred, you were able to continue playing the scale, while your mind thought about other things.
- ▶ **Perception is created from hardwiring.** Your perceptions of new situations are based on the hardwiring already mapped out in your brain. Basically, when you are confronted with new information or ideas, your brain quickly runs through your old hardwiring, to see if there is anything already there which is similar, and to which the brain can relate to this new situation. As you react to the new information, your perceptions of it are based on the old information which is already stored in your brain. This is why it is important for a leader to recognize that your team’s first perceptions of the new information, they are receiving, may not be accurate. An effective leader will focus the team on literally ‘keeping an open mind.’
- ▶ It is difficult to change old wiring. Once you have established a map or have hard wired a task, skill, or thought process it gets stronger every time it is used. Think about a pre-schooler who throws a temper tantrum every time he does not get his way. That child is hard wiring temper tantrums into his brain. As the tantrum becomes more and more common it also becomes a very difficult occurrence to correct. While this is an extreme example, think about the times you sit down and aimlessly do something without thought. Do it multiple times and you are hardwiring that action. Once hard wired it, becomes increasingly difficult to change the task. Not impossible, but difficult.

	<p>🔸 It is easier to create new wiring. Studies have shown that it is easier for your team to create totally new wiring, than to re-configure, correct, or change a previously established hardwired process or task. Keep this fact in mind when you are teaching your team new information. On a personal note, when you encounter an area in your own life, in which you want to alter, or change the accustomed outcome, or your habit; try rethinking how you can completely rewire the task. This will take some thought and flexible creative thinking, but it works. In your role as a leader, remember that you have team members who have hardwired their tasks, thought processes, and habits. When you are seeking changes in them, your best approach is to create a completely new way to hardwire the process. The more the team member has practiced the original task, the more resilient their hardwiring, and the more difficult it will be to rewire their brain.</p>
<p>Key point</p>	<p>6 Insights about the Brain</p> <ul style="list-style-type: none"> 🔸 We think in maps 🔸 Up close, no two brains are alike 🔸 We hardwire everything we can 🔸 Perception is created from hardwiring 🔸 It is difficult to change old wiring 🔸 It is easier to create new wiring
<p>Task for the day</p>	<p>Your task for today is look for your own hard-wired behaviour. Look for things you do that are automatic and ‘just seem to happen.’ Think about how hard it would be to change any of these behaviours. Try to think of a new way to hardwire a task.</p>
<p>Questions</p>	<ul style="list-style-type: none"> 🔸 What hard-wiring did you discover in your own personal life? 🔸 Are you aware of any ‘hardwiring’ in your team members, which might need re-wiring? How would you design a new map for the skill or thought process or your team? 🔸 When you try to do something in a new sequence, a new way, how hard is it for you to design a new hardwire map?