
Theta Scans

It is reasonable for a professional educator to wonder if they can exert an influence on the transfer of memory from short-term to long-term. At first, because this transfer occurs during a sleep state, we might think that we cannot have much influence, but just the opposite is true. As teachers we can have a dramatic impact on this transfer of memory. We should view one of our primary roles as an educator to be the orchestration of this transfer of memory.

Many of the moves and strategies already learned in our Quantum Learning trainings will be helpful in increasing the probability that a student's brain will successfully transfer important content from short-term to long-term memory. For example, the masterful management of student state to focus working memory can have a major impact on this transfer of memory. The use of all three educational channels in the initial encoding of the short-term memory is highly significant and will greatly increase the chances of successful transfer. The Success Model and the lesson design frame, EELDRC, are brain-based core components of the Quantum Learning system that will be invaluable for increasing effectiveness in this important transfer of memory.

Another strategy specifically targeting this transfer of memory is a student strategy called a theta scan. Perhaps there was never a time in the history of education when this particular move was needed more. This is because of the prevalence of student exposure to powerful media. Suppose we do an excellent job of encoding short-term memory in the classroom, and even give a homefun assignment to reinforce the newly formed neural networks related to the new content we taught that day. On completion of this homefun, suppose the student engages in some form of powerful media like a DVD, a television program, or perhaps a computer game. Might this exposure to powerful media have an impact on the transfer of memory while the student sleeps? The answer is yes. Exposure to powerful media can have a negative effect on what we are trying to accomplish with our students.

In research done by QLN staff working with students who had sustained serious head injuries, something very significant was discovered: proximity to sleep of material being learned exerts a significant impact on the transfer from short-term to long-term memory. This means that what a student does right before sleep can impact what the brain transfers to long-term memory. This is a very significant finding. It means that there is a great advantage to students who refocuses their attention on what they are learning right before they sleep. This is especially true if a student has engaged in any powerful media subsequent to the initial learning experience. Students who learn to do this will see an immediate improvement in their ability to retain and recall content.

We teach students that the last five minutes of their day is critical for learning and one of the most important parts of the entire school day. In the last five or six or seven minutes of their day they review what they are learning at school. Perhaps they look over those geometry proofs one last time, review the content-specific vocabulary words for social studies, or go over and say out loud their new sight words or math facts. The students understand that doing a theta scan is an essential part of learning. We want to habituate this behavior in all students.