



Creativity can help us to solve very difficult problems, and Defence could certainly make use of as much creativity as it can get. One set of guidelines offered in the TSP is to follow 4 stages: 1. Preparation 2. Incubation 3. Illumination 4. Verification (slides for assisting teaching this approach are on the VLE). In this newsletter, we take a brief look at some leading edge developments (some more edgy than others).

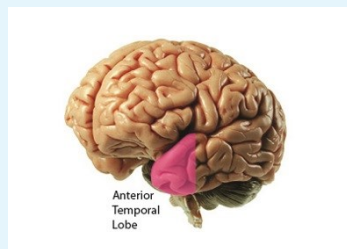
Please remember we are keen to help publicise other activities and expertise of relevance. The points of contact on the VLE has been updated recently with a further two members of the TSP community of interest from the University of South Wales and Plymouth University.

## A REAL LIFE THINKING CAP?

You are probably familiar with the idea of a 'thinking cap' that somehow helps us to improve our thinking capabilities in order to solve a problem. Most of us could have benefitted from such a cap at some point in our lives, particularly when faced with a difficult task and struggling to find a solution. Unfortunately, no actual cap exists that can grant the wearer amplified levels of intelligence.

However, recent work by scientist Prof Allan Snyder, may be leading us in the right direction. Through a technique called repetitive

Transcranial Magnetic Stimulation (rTMS) we can moderately increase our levels of creativity and temporarily unlock any savant-like\* abilities within ourselves. rTMS is a non-invasive method of affecting the neurons in the brain by manipulating its electromagnetic properties. The process involves holding an electromagnetic coil against the skull of a person and administering electromagnetic pulses to affect the neural activity of the brain in various ways, according to where on the skull the coil is held. For example, the anterior temporal lobe of the brain is responsible for conceptual knowledge, semantic processing and



using labels and categories. By targeting this region of the brain with the coil we can inhibit these functions,

which may allow the person to view and attempt to solve a problem using techniques and viewpoints that are normally inhibited by their prior knowledge or other constraints.

The technique is by no means fool proof (yet) but research shows there can be a moderate effect for some people. Perhaps after allowing more time and research for developing the technique, there could come a day when people's creativity can be significantly improved through the use of a 'thinking cap'.

*\* 'Savant' refers to exceptional capabilities in a very narrow area such as music, mathematics, memory, or art. This is often associated with particular cognitive conditions such as autism or a central nervous system deficit.*

## PERKS OF THE JOB: CREATIVITY INCREASER?

Creativity and innovation are often seen as key to the running of a successful, profitable company. Indeed, we live in an age where companies such as Google and Apple both dominate the market and dominate the news headlines for their innovative and creative methods of employee workplace satisfaction. It seems highly likely that this care for employees is a key reason for these two companies' dominance in the technology market. However, the idea of a company going "above and beyond" for their employees is not an approach that only the large dominant market leaders use. Many smaller businesses aim to replicate these processes and many of them generated ideas long before Google or Apple got a hold of them. A key thing to notice is that they are predominantly used by companies in marketing or technology markets. An obvious question for us is whether increasing employee perks and benefits will make any company more



successful and therefore whether more traditional markets such as finance and the public sector should adopt some (more) of these practices?

Let's look at the wide range of perks actually on offer from these companies. Certain companies focus on what could be described as fostering the personal development of their employees. For example, Dreamworks Animation, the film production company behind many of the most successful animated family films such as Shrek and Madagascar, offer a wide range of artistic development classes, including free art shows, craft fairs and movie screenings. A popular offering from many companies is tuition fee reimbursement and the J.M. Smucker Company, a food manufacturer in the US, offers 100% reimbursement on company approved courses, including further degrees. A key part of any organisation is making your employees feel valued and online shoes-and-clothing retailer Zappos holds the monthly Zfrog awards, in which employees can pitch business ideas



to the executives. Allowing employees time to develop their own ideas can pay dividends for a company. Although it is rumoured to have been abandoned now, Google had a practice of offering their employees 20% of their working week to develop their own

projects, which eventually produced many of the services they now offer, such as gmail. Before this, the company 3M allowed employees 15% of their working time for their own projects, and this allowed one of their workers time to work out how to put adhesive on to the back of a piece of paper to create the humble Post-It note. Although the patent that 3M held for the post-it note ran out in 1997, they now hold over a staggering 100,000 patents partly due to the success of their 15% time strategy.

However, this direct approach is not the only way to foster creativity. How employees are treated on a day-to-day basis can help to relieve stress and allow for more focus on the job in hand. Many companies offer sophisticated break rooms, relaxation lounges and even napping rooms and pods to help employees

wind down between work activities. Chesapeake Energy have a 72,000 square foot fitness centre complete with an Olympic sized swimming pool, rock climbing wall and free scuba diving lessons. Many companies, including S.C. Johnson, aim to reduce the stress of daily life for their employees by offering a free concierge service to perform services such as picking up dry cleaning, dropping off overdue library books to booking holidays. Other similar services include child care services, on-site laundry rooms and free snacks, meals and drinks. Akrya Inc, offer twice a month home cleaning services and free shopping sprees for their employees.

However, does this approach actually work? Forrester Research has studied the performances of creative companies against less creative ones. They have found that creative companies show higher annual revenue growth, are more competitive and have higher market share. In addition, the SAS institute, which offers many of the discussed benefits to their employees, report having immensely loyal staff and their employee turnover of 3-5% is considerably lower than the industry average of 20-25%. Having to employ new staff can be a costly affair so costs can be kept down by keeping your employees happy and willing to stay. Companies such as Apple or Google stayed ahead of the curve in their industries by adopting these strategies. Perhaps, companies in finance or the public sector could benefit by a greater investment in these sorts of approaches?

**THE TEASER SECTION:** Last month we asked you to find the common theme between 4 phrases. The correct answer was that they are the colours and emblems of 4 of the UK's political parties.

**OCTOBER'S TEASER:** There are six eggs in the basket. Six people each take one of the eggs. How can it be that one egg is left in the basket?

Answer in next month's newsletter.

If you're struggling, why not try your hand at some brain training with <http://www.lumosity.com>

If you've enjoyed reading this and wish to be added to the monthly mailing list or have any general feedback, please feel free to contact us.

Aaron Vick: [avick.cu@defenceacademy.mod.uk](mailto:avick.cu@defenceacademy.mod.uk)

[defac-tsp-admin@defenceacademy.mod.uk](mailto:defac-tsp-admin@defenceacademy.mod.uk)