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Amalgamation of Mind Wandering with Military and Defence

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***Abstract* - In this paper we are going to present, how to curb the affect of mind wandering during military training and in the field of defence. Basically, mind wandering software will check the ability to stay focused on the task and make t imely decisions. This paper also discuss about the different types of training that is provided to the soldiers and about the consequences of the mind wanderi ng pills.**

***Key words:*-- mind wandering, aviation, brain games.**

I. INTRODUCTION

Soldiers are experts at standing at attention, a body posture that conveys motionless alertness [1]. The life of soldiers is very inspiring. They sacrifice their life for the sake of their country. They perform very high stake tasks and their screening should be done in a very efficient way. Screening is done not only on the basis of their physical fitness but also focuses on their mental prowness includes their level of concentration, alertness from danger and sharpen their critical skills.

II. USE OF GAMES FOR MILITARY

Gaming is the most feasible way to mould any brain. These games are scientifically designed to increase and stimulate specific function and parts of the body for attention, memory and learning. Brain games in military are a user-friendly way to perform personalized training of all soldiers. Various games like virtual reality combat training, full spectrum warrior, and America's army can be the instance of military games.

A. Virtual Reality Combat Training

This system is created by Raytheon. It has a virtual training ground in which we have to track the movements of a soldier through the use of a rubber pad and a weapon-mounted controller. The benefit of this game is that it is an easy way to train the Army that cannot be reinvented. And it allows the

troops to familiarize themselves with the weapons and equipments they will use in a real-world situation [2].

B. Full Spectrum Warrior

In 2004, this game is invented by THQ and The U.S. Army-funded Institute for Creative Technologies. The Army's Science and Tech community created the first attempt at effective video games for training purposes. There were two versions of Full Spectrum Warrior the one released for the public, and another one used as a training tool. Another version of this game, called "Full Spectrum Command" would be introduced later for company-level commanders [2].

C. America's Army

It is not just a game; it is a series of games. In this the U.S. Army developed and published a first-person shooter to provide a virtual soldier experience that was engaging, useful and enjoyable. When it is first introduced in 2002, then it grew into their new versions like Xbox360, arcade and mobile apps. In the latest version of America's army, soldiers can easily distinguish themselves in their combat. This series has won many awards including Best Action Game of E3 by GameSpy and Best First Person Shooter from Wargamer [2].

III. BENEFITS TO SOLDIERS BY PLAYING BRAIN GAMES

These are the following benefits of playing brain games:

- Clearer and quicker thinking
- Elevated mood
- Better concentration at work
- Increased alertness and awareness
- Improved memory for names, numbers, directions etc

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- ♣ To grind soldiers brain functions
- ♣ Used by the seniors to retrieve their spark

IV. ABOUT MIND WANDERING PILLS AND CONSEQUENCES

The Indian Air Force has some new weapons in its armoury. They are innocuous looking tablets called GoNo-Go pills. IAF fighter pilots are now increasingly using these sanctioned pills to boost alertness levels and imaginary powers as well as fight fatigue and sleep deprivation during round-the-clock combat exercises [3]. Go-pills to boost alertness and fight-fatigue during war like combat exercises and GoNo-pills for sleep before next mission.

V. ROLE OF MIND WANDERING IN SCREENING FOR MILITARY

In the screening which is done for the military training the candidates are presented with the intelligent test which has verbal and non-verbal questions which requires a lot of focus to clear then we have the picture perception test, which is a time based task and it is very important not to get wander in that short duration of time otherwise you will lose. And in the other tasks like shooting, swimming, meditation etc, mind wandering is an open invitation for losing concentration.

VI. MIND WANDERING AND PILOT TRAINING

"The more procedure is self-starting and the more comfortable we become with it, the less keen attention we feel we need to pay it [4]." As often promoted the benefits of the automation in the airline cockpit is that it frees the pilot's attention from annoying control tasks and spare time to discover, think ahead and target on their master plan of the flight [5]. The pilots can utilize the time they spent on planning around potential weather hazards, monitoring the health of the airplane's many systems, fielding requests from air traffic control rather than wasting on useless things.

VII. USE OF MIND WANDERING SOFTWARE IN MILITARY AND DEFENCE

This software can be used to perform high stakes task. All the airplanes and choppers must be installed with this software so that the pilot is warned in case his mind is not focused completely no accidents take place likes collision from high rise buildings etc. This is basically useful in night shift jobs. Also, the software can be used to evaluate the new pilots and their concentration levels during the training. It can be used to measure the performance of the trainees and drill them to enhance their mental prowness.

FUTURE SCOPE

Brain games will help soldiers to be mentally prepared for all mental related tasks. In the coming time, the focus of the military training will be to minimize the mind wandering of soldiers so that they can contribute their entire attention on the training and perform their duties well. Also before coming for the screening and training, they are mentally prepared beforehand. They already are aware about the defensive strategies. Also research work is going on to developed robotic army. Next generation military robots shall have minds of their own. A number of robots in development for the military are being given increasing amounts of autonomy [6]. Mainly these robots will be a great help to military because the automated robots mind do not wander and hence no accidents shall occur.

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REFERENCES

[1] Amishi P. Jha1*, Alexandra B. Morrison1, Justin Dainer-Best1, Suzanne Parker1, Nina Rostrup1, Elizabeth A. Stanley2, 3, Minds "At Attention": Mindfulness Training Curbs Attentional Lapses in Military Cohorts. PLOS ONE DOI:10.1371/journal.pone.0116889

[2] Blake Stilwell posted on MAY 13, 2016 "Military Video Games Used to Train Troops on the battlefield" retrieved from https://undertheradar.military.com

[3] Zee Media Bureau, posted on February 8, 2016. Latest weapon in IAF armoury – 'GoNo-Go' pills

[4] Maria Konnikova, September 4, 2014 "The hazards of going on autopilot" retrieved from http://www.newyorker.com/science/maria-konnikova/hazards-automation

[5] Stephen M. Casner, National Aeronautics and Space Administration, Moffett Field, California, USA, and Jonathan W. Schooler, University of California, Santa Barbara, USA "Thoughts in Flight: Automation Use and Pilots' Task-Related and Task-Unrelated Thought". Vol. 56, No. 3, May 2014, pp. 433–442 DOI: 10.1177/0018720813501550

[6] Sharon Weinberger- November 2014 "Next generation military robots" retrieved from http://www.bbc.com/future/story/20120928-battle-bots-thin k-for-themselves