

WHOLE BRAIN LEARNING - THE SUPER TEACHING STORY

BY BJ DOHRMANN

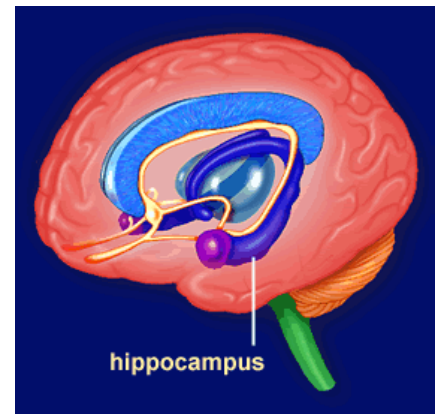
THE HIPPOCAMPUS STORY

To understand the road blocks taking place in the construction of modern classroom design one must first understand the inner workings of a learners whole brain function as we know it today. As the information we discover related to whole brain learning achieves hope for break through learner acceleration derived in part from new classroom design. Regardless of the form digital educational delivery creates (digital curriculums) the "theater" or delivery system will become as important as the content itself. Every school administration team understands that unless the learner improves memory retention and recall (MRR) for the "educational movie" (regardless of the form of this movie, such as existing lesson plan, multimedia supported lesson plan – or self supported interactive digital lesson plan) the score will not in fact change across the wide spectrum of learning groups unless the MRR is elevated. A condition best achieved when the delivery system for education most faithfully mirrors the whole brains favorite way to learn. But what is the brains favorite way to learn?

Lets begin with the Hippocampus story.

The Hippocampus located above the central brain stem is acting for classroom learners, as the "virtual RAM" memory for the human brain. The sensory input we all enjoy when in the presence of one another, as well as the sensory stimulation from tactile, auditory, emotional, visual, kinesthetic and non-verbal cueing that takes place within all human learning flows directly through the hippocampus. The Hippocampus is the controlling telegraph station of the mind acting as the "central switching" station to "decide" what long-term posting of any incoming stimulation will remain in permanent impression to the cerebral cortex (the multi hard drives of the human brain). The reader of my paper is saturating their own hippocampus with chemical data that is now stimulating electrical generation and cell state simulation in the neurocortex fields creating state capacity for memory retention and recall along pre-defined calcium charged ion pathways (which we can now field map) flowing within the neural highway of your own mind. This involuntary process dictates to "pre conditioned" response levels whether you will in fact remember my words or delete them as you fail to argue the premise at any future point of debate. Your unconscious competent is your hippocampus control system – now under the most serious stress since evolution began to work on higher brain function.

Modern mind theory currently concludes the conscious fields incorporating perception and feeling are replies to stimulations that arise in mind fields much like magnetic fields as generated



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in a coil of wire. The multiple on/off signals of our vast “mind” fields of connected neurons create a virtual “conscious field” that itself depending upon its state degree – or cell electrical intensity – will define our MRR or memory retention and replay. As much of a learners mind field is generated through involuntary stimulation, developing new classroom design criteria for “knowing” which stimulation sequence (say in classroom architecture) generates more intense memory retention and recall becomes of vital importance as the outcome is improved human comprehension – learning. The Super Teaching longitudinal study invested more than two decades to discover if the brain indeed could provide feedback (mind mapping) establishing a measured whole brain response that the “mind field” did in fact have a favorite way to learn.

Mind fields also have optimum learner states for reception. Mind fields may turn chemistry on or off to elevate mood and expectancy. The very presence of more appealing mind field technology (Super Teaching) stimulates favorable field states more receptive to long-term memory posting (retention and recall). When such tools are absent from the classroom the mind field fails to duplicate the conditions of deeper storage for the learner. As these experiments are now possible to duplicate using modern mind mapping technology any institution can prove the premise for Super Teaching with their own double blind studies. Variation in the output is minimal and all human brains are effected positively by incorporating Super Teaching classroom architecture.

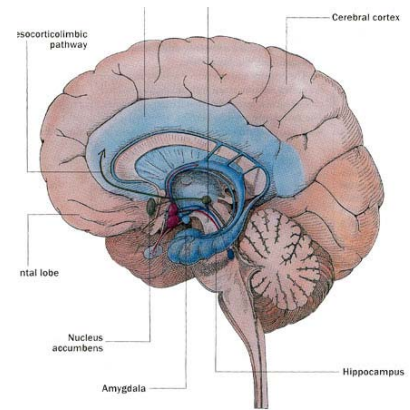
The hippocampus operates with a CPU program that is slow to alter in evolutionary time. Hippocampus core program (firings) develop over generations based on its early history repetitive environmental programming. The program process of earlier human history was more gentle than today's, taking place over massive time periods. The hippocampus of past generations was not influenced by or hyper stressed from the current generations assault of multimedia sensory input. Today's imploding societies now saturate the hippocampus with multimedia stimulation from shopping mall, to home entertainment theater, to IPOD. The Hippocampus Ram, when compared to a 286 computer, might be a 564 byte ram drive facing terra/bytes of high bandwidth incoming – that require a 100 gig ram versus a 564 byte ram capacity to manage all the incoming information packets. This stress load has altered the core program of “how” the hippocampus selects or discards information for long-term memory storage on the brains C drive (cerebral cortex). Vast sums of learner information are now being dumped, a condition beyond the educators teaching art to repair. More correctly there is now a selective brain switching deficit disorder versus an actual attention deficit disorder in modern brains. In fact recent studies verify the conclusions of the two decade old Super Teaching trails – that conclude the brain itself has been restructured at the synapse level for multimedia conditioned learners at very young ages. The appetite to learn remains high for all learners. The form of educational delivery to the new brains anticipation for delivery method as well as content quality defines whether the brain will discard or post the curriculum information packets. This new data holds great potential for human learning in the current generation.

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In a single span of two generations more evolutionary pressure has been placed on the Hippocampus/Cortex system than in thousands of years of prior human environment. One might ask, was the hippocampus designed to adapt to the modern stress load? Consider the hippocampus mission of learning to plant corn, over time, from a mentor sponsor. Now consider a young teenage learner exercising a modern hippocampus mission at any urban stop light at any busy intersection, while the six yahoo windows opened on the wireless card beep and demand multi replies on the full featured laptop on the seat facing the driver as they stop – and each demand the drivers attention. All the while the driver is engaged in busy cross traffic, on the go, scanning and making selection calls and throughout the duration of this enterprise the driver controlling complex machinery is also talking on the cell video phone, seeing and talking to a third party at the same time – and taking two calls on hold that beep in and placing one call into a two way conference while they answer the yahoos and watch for the stop light to change – even as the pager on the young teen drivers belt is going off making them take the IPOD bud out of their left ear – and during the stop light, still on red for only seconds, the driver is also replying to the heat by turning the air condition down and ignoring the GPS routing verbal commands coming from the center console. The light abruptly changes to green and the accelerator must be depressed while countless priorities are managed and moved into sequence. When is the adaptive quality of the human hippocampus naturally exceeded? Is it now? When such a pre conditioned learner enters a modern antique classroom design – the brain – elevates mind wandering and "channel switching" of the slower classroom media (the teacher). Modern brains fail to post countless information packets into long-term memory retention and recall (as test scores demonstrate). During the time that national test scores have lowered teaching deliverables have risen to unmatched excellence. What is wrong? One might question over eighty billion dollars in the wrong technology solution where countless points of useless obsolesce have arisen all without grade elevation. What continues to be wrong?



The first generation of help was provided primarily by manufacturing companies seeking to keep their factories busy. The actual proof of performance their educational technologies "worked" proved, much later, to be shallow. Institutions left with high repair costs, obsolete technologies and underperforming statistics began to back away from technology in all applications as a sustainable solution. Still the test scores did not recover and, for much of the world, are not showing promise of near term recovery anytime soon. Why are the learners failing to learn for the first time in recorded human history?

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Dr. Benjamin Libet of the University of California at San Francisco found that certain simple actions, such as moving one's hand or turning your head on your neck represent processes at the neurological level that are pre initiated before the conscious decision to act has taken place. How would such experiments in the 1970's (new recent information on whole brain function) impact learning in every classroom?

Another relevant question might be is the hippocampus innately better designed by nature to manage a time period of adapting humans from the first hunter-gatherer life-style toward several thousand years later to the buckboard with a cup of piping hot coffee on the seat beside the driver, versus adapting to today's astronaut managing a safe shuttle landing? Have we reached a stage of hyper stimulation that the adaptive qualities of the key switching center of the brain, the Hippocampus, are now simply in overwhelm? Have we humans required new software operating codes for a hardware device that is not designed by nature to handle the memory requirements of the new multimedia world we now live in or the velocity of signals now reaching such brains?

Perhaps the most correct question would be, when is the adapting process of the brain chemistry and hippocampus ram processing system taxed by incoming super stimulation beyond the ability of the hippocampus to function at optimum? Is such a condition affecting classroom learning for all learners worldwide today?

In 1986 (even more recent new whole brain information) Dr. Byron Reeves of Stanford University and Esther Thorson of the University of Missouri began to study whether the simple formal features of television multimedia – such as cuts, edits, zooms, pans, variable noise patterns, and changing images effected by special effect motors would activate focus and elevated attention on the screen. A profound conclusion developed. This data pool would become a “floorboard” for later Super Teaching Theory for all learners and the basis of new classroom design incorporating Super Teaching as the brains favorite way to remember, retain, and recall (the three R's). The conclusion reached by this pioneering multimedia research team postulated from watching brain waves and mind mapping was that attention was positively effected (enhanced) by multimedia form over substance, and that these stylistic tricks did indeed trigger “involuntary” response to improve memory retention and recall (MRR). Such responses derive their attentional value through the evolutionary significance of movement. In Super Teaching theory we would later come to call the ideal movement sequences ST Pattern



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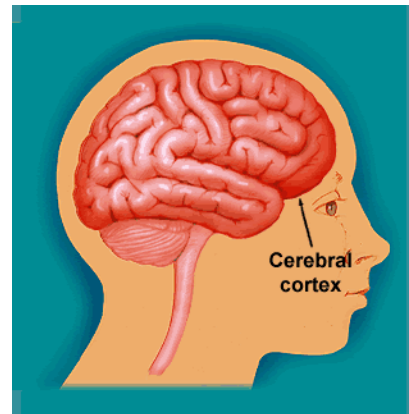
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or Super Teaching pattern shifts the brain into higher states of memory retention and recall. As the process could now be measured the science became "which" patterns suggested the best performance. The final point of the important work presented by Dr. Reeves, Dr. Thorson and their team concluded that the multimedia "form", not the content, was the aspect that created the result as unique (elevated viewer attention) and measurable test score output. Viewers tended to have riveted attention on presented subject matter with the ST pacing in the classroom but when lacking the ST pacing stimulation individuals experienced involuntary randomized mind wandering that defeated elevations to memory retention and recall (MRR) (a return to poor test score performance).

As the wiring bundle to the hippocampus is the brain's virtually "everything" our minds "patch board switching station" from which all "incoming" is filtered into long-term, permanent storage (cerebral cortex) the taxation upon the ability of the hippocampus to function at optimum due to hyper stimulation is taking a considerable and increasing role for modern researchers in defining the future of classroom learning and design.

The hippocampus alone makes decisions, and for humans who wish to learn, hippocampus decisions are absolute as to which incoming information will be stored into the cerebral cortex and for some aspects of human learning the cingulated cortex of the brain. Not only does the hippocampus, or short term ram memory, make a decision as to what information patterns (memory) will be placed into the brains longer term storage or C, D, E, F, G, H and related hard drives (cerebral cortex) – the massive cerebral cortex of the left and right brain hemispheres do/do not receive data based on hippocampus selection or predetermined on/off cell state controls. As these on/off cell state controls have been found to fall under outside "influence", it is therefore possible to determine the learner brain is more "on" than "off". This knowledge and technology condition is new in the history of human education and brain state knowledge.



For example we now know the hippocampus, virtually alone, decides precisely where curriculum information packets or bundles of incoming information from all RAM experience will next assemble, and combine auditory visual kinesthetic emotional stimulation, into later recognized patterns. ST studies have demonstrated specific input stimulation (three screen variable pacing learner multimedia) can influence, as well as impact, the electrical quality of each learner impression (cell state) and the depth such information packets will be chemically impressed into the cortex's synapse nerve bundles for later retrieval. If the impression and the impact for the electrical storage process (memory state) is weak the reconstruction of experience is vague or

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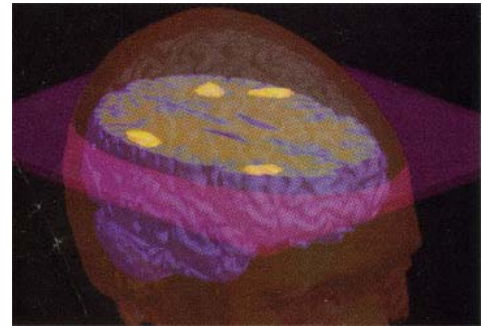
non existent. If the impression or the impact for the electrical storage process (memory cell state) is high in quality the potential for reconstruction of the experience (learning) is improve. The fact that such potential at the cell state level can be influenced for all learners represents a new system opportunity for classroom design and teacher output performance.

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The modern hippocampus is besieged by a condition we call “super or hyper stimulation”. The continued “super stimulation” for the modern hippocampus (media conditioned brains) has resulted in a new set of CPU rules to send or delete experience (information) to long-term storage. The new brain rules also control when and to what impact (impression state) learner experience should be moved along neural pathways to store selected incoming experience in long-term memory via packet delivery to the cerebral Cortex - ultimate memory.



The new brain memory rules are not static. The new rules are evolving. Depression and various brain chemistry states that are far from learner optimum or historic to human condition are now also challenging modern learning. Cell state “aggravation” largely resulting from hyper or super stimulation has challenged human adaptivity and created chronic sleep disorders, concentration issues, and related human communication changes all in the span of a handful of generations. Other chemical states such as eating disorders and environment also effect learner states.

It is our observation, over thousands of hours of adult and young learner education, that the hippocampus and hippocampus linkage to whole brain learning (neuro pathways) and the important Cortex packet long-term storage system - actually three systems - are all in a state of hybrid evolution as they react to changing incoming super or hyper stimulation now effecting modern learners.

The primary consequence of the short term super stimulation result has been new brain divisional specialization that more highly divide and regulate storage “state” of information packets from hippocampus to cortex. Said another way - the hippocampus, now being compelled to manage expanding information quantity within evolutionarily limited ram space, (cell capacity substantively remained the same from cave man days to the present) - has reached a point of maximum adaptation.

Society is delivering exponential velocities as well as volumes of simulcasted, multimedia, hyper stimulation for incoming information from ever increasingly multimedia sources – forcing the hyper stressed hippocampus – cortex information management system (your brain) to employ new “pulse technology” to in effect blast pulses of “selected information packets” to increasingly specialized mind-state storage zones in the cerebral cortex (virtual ram created by synapse mind fields within the cortex). The hippocampus is deleting experience that in earlier generations would have been retained as learning. More data is being lost through this new mental process, than at any period in prior human knowledge.

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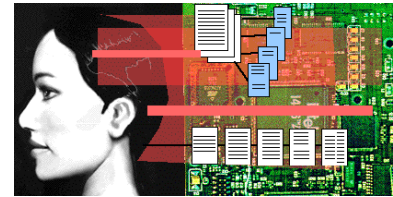
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As the hippocampus deletes habitual information packets the intelligent hippocampus core program regards are "not required for long-term storage - an unwanted by-product of pulse storage by the hippocampus is that new brain selectivity programs are being designed from experience to serve as a whole brain "coping mechanism" for the current decade massive sensory overload. Sleep deprivation is now epidemic in the general population, itself another factor of brain over stressing. The overtired brain tends to ever accelerate the delete bin activity losing more experience. This fact is especially important when the theory is applied to classroom learning essential for our modern way of life. Sleep disorders foster eating disorders fueling a depression epidemic in learner populations.

In effect the cortex and hippocampus information management systems have developed a C Drive a D Drive and many additional drives for interaction with the brain ram or hippocampus sensory collection focal point. Whole brain involvement is now adapting by working to create "new virtual mind ram" using cortex power for this process of compartmental more highly specialized storing of memory for later retention and recall.

Modern brain mapping shows the new form of brain synapse structure is creating "mind fields" in new areas of the cortex with new function that was not thought to originate or "rest" in that particular brain map area.



Publications in 2004 by the University of Washington demonstrate newly grown super stimulated neuro pathways (a virtual hippocampus) using pulse technology within the brain serve as a virtual fiber super bandwidth "mind field highways" evidenced by long-term studies of massively multimedia conditioned young brains. These young brains demonstrated the ability to broadcast or simulcast ever increasing information back and forth between brain hemispheres and via the cortex hippocampus pulse system were "highly selective sensory information" only was selectively stored on C, E, F, G, H fixed cortex mind drive zones as needed for long-term memory. The long-term memory impression for these young super learners employed (accordingly to the University of Washington 2004 studies) new allocation rules to establish permanent core human memory (learning). The new rules accommodate hyper stimulated brains in a definition for how classroom learning might positively adjust in the future to better record new knowledge in the brains most favored process to acquire new information. Modern learners arriving at today's classrooms are less capable of storing long-term impressions (curriculum) for memory retention and recall within the pacing and design of the old model classroom structure. The teacher and content is no longer so much the issue as is the "form of delivery" a subject theme of all Super Teaching papers published from the 1980's through the present. The super learner's favorite state for acquiring new information is proven to reside within a three screen, differential image patterned, live faculty assisted, automated classroom. This virtual "whole body" learning environment includes ergonomic furniture to elevate the alertness of the brain to the incoming

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curriculum.

The National Institute of Health has demonstrated that seriously damaged brains as well as brains of the very elderly still develop NEW neural pathways in reaction to super or hyper stimulation. The Discovery Channel produced a major break through series on brain damaged learning and the adaptation ability of extremely damaged brains to self repair – self regenerate and to with the right form of hyper stimulation grow new neural mind fields to assume the function of the damaged brain areas.

New sensors are defining new models for brain mapping that coupled to classroom bio feed back studies (many performed by the Super Teaching team over twenty two years of multimedia learner state testing) defined that the brain storage system is itself “learning”. Adapting to hyper stimulation the super learners brain is defining new virtual permanent ram allocations of Cortex storage areas for regular categories of new hyper stimulation pulse storage. Brain hard drives in effect are being created and allocated specifically for media, family, church, relationship, learning, entertainment and recreation, transportation and scheduling are now part of the cortex new differential drive pattern and more virtual storage areas are being added to the human condition from instant messenger, email, video mail and new experience, not to mention cell phone, live video, and digital photo libraries exploding now into our consciousness. The brain is evolving to the conditions of hyper stimulation both electrically and in cell state.

The new super stimulated hippocampus may elect and often by its own rules of intelligence decides, in an entirely new selective process what information IS and what information IS NOT recorded for transmission to long-term storage memory retention recall (MRR). The frontal lobes are playing a lower function role (conscious alert awake intervention) to the process of long-term posting – learning. The brain now overtaxed to manage the diverse functions of say a palm digital assistant while driving and talking on the cell phone with an XM radio broadcast discussing the latest terror event, is evolving new functionality. As per an evolving rule set, reacting to incoming information packet growth, new patterns to regulate moment to moment sensory input are regularly being reported by brain function scientists. The hippocampus appears to be induced to control a favor for regulating cell state at the cortex ram and storage areas (or human reflection and multi processing time). These hippocampus traditional functions seem hard-wired to include pre-defined limitations. The hippocampus prime directive appears to be built upon the notion of its effort to seek to avoid over taxing the brain CPU overall. This condition can readily be seen in any household as a parent or child commands the listener watching television or working on email or communicating on cell phone while pacing – that dinner is ready and is now served. The super stimulated hippocampus whether at home or in classroom – may decline to post the incoming “dinner information” so that the sender must repeat the message in ever rising emotion to secure “attention” from the new rule set of the hyper active hippocampus. The reporting of brain states in the super stimulation mode can

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become either new experiences to the current generation, or lost deleted impressions that failed to post. Highly trained faculty in the global village when unaided by new classroom design are virtually powerless to improve the learners delete or post, and or by employing old models of teaching art alone. There can be no more important mission than to extrapolate whole brain impression "posting" from the current observations. As relates to classroom architectures that will accommodate the new whole brain reality for memory retention and recall, the topic may be among the most important facing national interests in the world today. As industrial leaders are unlikely to acquire the employee skills they desire to continue their pacing for invention and renewal the private sector interest in resolving the learning deficit disorders of the present learner are equally pressing.

As the brain records cues almost instantly the information giver "dinner is served" provider as (input source) recognizes as their hippocampus is multimedia processing at the moment (zero deviation by the receiver from the DVD big screen program). The process continues such that the sender now modifies cues such that the listener who has not yet reacted to the stimulation (which has been substantial). The receiver not reacting to the second or third modified cue (louder volume and closer body proximity) is in fact suffering from hippocampus super stimulation, multi tasking inside the CPU to keep pace with million dollar a minute cues arriving from the multimedia, high definition TV programming. To the brain the CPU activity of HPTU is more real than the activity of the cue sender. The Hippocampus heard the information arriving to the ear sensate "dinner is served" and saw the family member sender speaking in the peripheral vision area – but the receiver brain failed to send the information packet to the ram storage or long-term C drive storage in the cortex and therefore the frontal lobe could not recall retain or recall the data stream. The information was heard by the hippocampus and discharged into deletion without anything but an "non retrievable" information packet weakly impressed into the ram cortex. The Ram cortex system itself fixed on a more favorite multimedia posting criteria – HDTV - favoring new synapse patterns in the modern brain - with more deeply "less routine improved visual auditory" animation coupled to elevated emotional cues – all within non repetitive experience, TV high definition - commanding the foremost whole brain attention as (when compared to the more routine "dinner is served"). The brain was emotionally engaged in the high definition program. The brain was multi tasking – attempting to recognize impossibly varied patterns. The brain knowing the sender pattern deleted the known pattern in favor of the task of discovery of the unknown pattern (movie outcome and prediction). The brain was sufficiently engaged that it failed to post the first sender cues and experiences and could when asked "not recall the information" imparted. Something was requested – but what?

The attendant brain is creating a calcium channel chemical storage too weak for the cortex to reconstitute when called upon to do so by the frontal lobes. Thus for the first time in human history (or classroom learning) the actual content was lost forever and the expert "channel switcher" by selected operating program (opened word program for watching TV or opened

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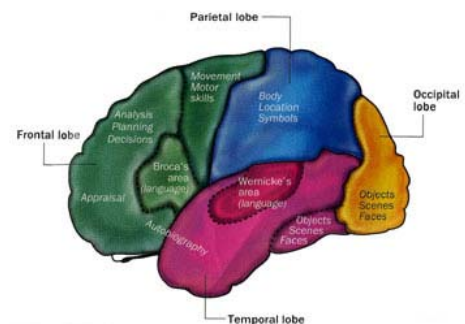
excel program for listening and deleted their brother yelling about dinner). Actually the Learner has neither recollection or visual picture of prior experience. The prior experience is gone. The test failed. The learner simply was channel surfing inside the hyper stimulated cortex and was unable to retain information the hippocampus selected as "too slow" and too routine to post into long-term memory. However, the great news for education is the hippocampus "can be had".

The Frontal Lobes act as the machine operating language to manage the master FAT files the cortex records and serve

as a conscious versus a super conscious "reader" to reconstitute experience (memory). What we experience as conscious is the frontal lobe experience. What we experience as flashes of inspiration is a virtual ram-hippocampus experience (with perhaps a little of our eternal soul sprinkling into the mix). The brains frontal lobe "reader" scans like a flash card reader enormous data pools from the lakes of memory recorded into the cerebral cortex. However in hyper stimulated brains the frontal lobe reader is unable to reconnect experience that is too weakly impressed upon the system (cell states of the cerebral cortex) by the evolving rules of the hippocampus posting and record system into. Memory in the Cortex often arrives via a weaker cell state for storage (conversation versus multimedia) for example. The result is learner packets are lost forever. When such packets are vital for human communication (friendly fire on the battle field) or critical mission work for health or safety – or transmission of social education to the coming generation (classroom learning) fresh approaches are suggested to effect elevated and uniform whole brain performance improvement.

The information delivery system (your son) may have to repeat the message with ever greater animation involving more visual, (waving arms) kinesthetic (pulling on "your" arm) and emotional (raising of voice) cues to create a more deeply record impact (cell state) impression – DINNER IS SERVED MOM IS GOING TO GET REALLY MAD!

The senders multi stimulation breaks through the hippocampus multimedia monopoly (DVD on Television) as selective distribution rules override the weak first cell state impression (resulting in lost forever information packets) to now replaced new incoming experience and a deeper more impactful cortex cell state impression recorded. The result of the larger packet recorded more deeply to cortex via higher electric state function at the cell transmission level results in a frontal lobe scan that retrieves the experience into conscious scheduling of real time priorities for pending action (turning off the TV and moving to Dinner with your family). Such an outburst



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however is impossible to produce continuously within a classroom-learning context. As the teacher has limits on their own adaptation to stimulate (teaching art) the classroom itself must change to elevate the output performance every teacher desires. But how?

The mechanism described in this paper on new brain function becomes critical when the subject under investigation relates to human learning within the modern classroom. Classroom learning is largely defined by cues and patterns. As one of the most important aspects of classroom learning include non-verbal cues "differential" to each individual learner state (student body at the moment). Digital product appeals to some but not all learners when used continuously. Uniform test scores have not improved with even the most advanced digital learning deliveries over the long-term. The "cue" pattern of any modern classroom requires a leader – the live faculty member – to direct the learning for human education. Super Teaching classroom theory precludes advanced work with digital automated learning designed to replace the faculty member. All such experiments without exception failed. The reason – cue issues for which only live faculty provide the solution. The "interdependency" of digital media and live faculty bridge the brain's hyper stimulation by providing the key element of a 3D cue control system. This ST pattern effect is sufficiently dynamic and varied to elevate attention for all learner groups. Our research further concluded if either the live faculty member or the "ST technology system" were removed from the classroom – test performance declined.

The process of super stimulated hippocampus posting to educational material, sends information packets under new rules of faculty and teacher experience to the all important cortex long-term storage area (highly depending on cell state). Learners are now impaired from earlier generations largely due to hyper stimulation. The quality of educational retention (memory) for modern hippocampus brains is declining almost entirely due to failed classroom design planning at the construction level. This condition is reversible.

The traditional classroom experience provides opportunities for the super stimulated hippocampus to operate in a condition known as "mind wandering". As the mind wandering represents an internal posting experience that more faithfully duplicates super stimulated real world conditions; the sender (faculty member) finds a large quantity of the information packet (curriculum) is not posted to memory retention and recall (MRR) by the hippocampus. In fact the cell state electrically speaking is so weak that the ability to define desired long-term memory impressions to the cortex is virtually nullified by conventional classroom design when super stimulated brains are present. As more and more of the world is experiencing super stimulation through multimedia from waking till rest the classroom itself has come under stress.

The frontal lobes are constantly struggling with retrieval of weakly stored short term classroom memory experiences (the lesson plan) as evidenced by test scores from a majority of human learners on common base skill topics most notably reading, mathematics, geography and

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history all core skills sets.

The young learner mind is pre conditioned by multimedia input to seek super stimulation via expectancy. Increasingly numbers of learner minds are super stimulated via dominant prior conditioning via millions of dollars per minute in multimedia stimulation made possible by modern programming – computers – the internet – game devices movies television cable and satellite and streaming media. Even the IPOD generation represents a multimedia stimulation addiction for which the brain is unable to substitute “downshifting” for far slower pace of conventional classroom learning. The pacing of modern classrooms must accelerate to more faithful match "brain state conditions" of the super stimulated learner.

The hippocampus under its new set of rules is anticipating even expecting super stimulation. When the hippocampus fails to receive the desired super stimulation the hippocampus turns to multi tasking of “previously stored” information in an effort to determine which short term ram memory cortex and now pulse communicating new hippocampus should be stored and re-prioritized into long-term cortex memory. As this mind wandering is habitual and opportunistic to “available brain CPU time” the mind involuntarily shifts back and forth into the virtual multimedia of posting via mind wandering in favor to attention on curriculum context. Any modern faculty member recognizes this mental pattern inside antique classroom design.

The learner mind becomes preoccupied with the mission work of self study on how to post each of fourteen levels of recent super stimulated experience within the game boy device (their own mind) as the brain also anticipates exit to recess where super stimulation occurs once again via IPOD and associations with others. As the human imagination plays back reviews of recent internet tours or movie trailers, seeking to suggest which specific movie might be the right selection to request a friend at exit as learners declining to post weaker curriculum material in the non Super Teaching classroom – or classroom content - typically may not be posted at all, or posted too weakly to retrieve, in the cerebral cortex. The faculty content is mentally disregarded and placed all too often into the hippocampus delete bin via involuntary modern brain chemistry. Over a relatively short time the deletion of faculty material (the inability to pay attention in classroom for non super stimulated brains) becomes more fixed and habitualized. The pattern is reinforced as time passes and failure patterns develop.

In time the learner habits have depreciated to a point that normalized learning is all but impossible. The inability to learn is off loaded via group consensus to the institution the faculty or the curriculum and too often now to special education. The inability to experience normalized learning is sufficiently common so as to become culturalized within the learning institution.

The author team hypothesized that given public education was experiencing an epidemic of attention deficit disorders as normalized learning became a minority condition, a mandate for new automated super stimulation for the classroom experience existed, we saw no need for

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modification to lesson plans or faculty delivery to restore hippocampus attention management to the faculty benefit. The idea was to use the new brain storage system and apply modern brain theory via "smart" technology in a proven pattern to accelerate long-term memory retention and recall without altering faculty delivery of the lesson plan. To facilitate this experiment it was decided that the late Kaye Bairds Montessori school in Honolulu Hawaii would be used to instruct multi racial disadvantaged learners in summer school trials in the late 1980's. The pilot program applied the end product of years of technology configuration to install a three screen final form pattern shifting multimedia system behind the live instructor – automated to a degree that the instructor no longer would pay attention to the new educational theater supporting their work. The breakthrough technology was called Super Teaching.



Initially CD ROM programs with CRT screens were applied. As test score results failed to provide elevated learner result higher form content was developed. In effect using CRV platters (a precursor to the present DVD) the producer team attempted to elevate through CRT interactive learning – higher performance. These final tests failed to elevate learner output. (see Hawaii Congressperson Jerry Chung)

A number of surprising conclusions resulted from this multi year study until the time of Kaye Bairds passing in the early 1990's. First the research team concluded that interactive power point (regardless of how highly produced) failed to impact long-term measurable comprehension for the majority of learners when effected on a single or dual screen delivery system. The hippocampus learned "the pattern" and failed to post into long term memory within a short time period.

Second the research team concluded that video productions regardless of the quality of content failed to provide elevated test scores over longer term applications for the majority of learners. The hippocampus required a variable pattern that could not be learned and the research team would come to discover a 3D (live faculty) facilitator was vital to any 2D multimedia stimulation taking place behind the 3D presenter. Without the combination of both 3D and 2D the learning performance gain was absent. These details began to incorporate into the evolving Super Teaching core theory.

The research team did notice that a minority of learners with propensity for one form or another of right brain visual cueing or left brain auditory cueing would secure higher performance over time from the super stimulation of one medium or another, while the majority of learners did not

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alter performance output regardless of program variety or ingenuity. As the objective was to elevate the performance of all learners the study was continued.

As state approved and accredited lesson plans were primarily utilized the failure to secure long-term performance from the repeated experiment model was disappointing for all participants. The expectation for the impact of the media quality and the focus by the learning on their individual pacing anticipated improved test score results. Significant sums were invested in double blind trial work and the failure to secure desired output (learner performance) was sufficiently discouraging to almost derail further program efforts.

A departure experiment next exaggerated media operating in support of the conventional live instruction. The first experiment placed two media screens behind the live training and provided differential data on the duplex screens including the live instructor image – the student image – and document camera images that represented information the live instructor would present in conventional fashion via writing or display on an overhead.

This experiment also failed to elevate subject performance. As the direction had not proved fruitful in the past the research team was not surprised with this outcome.

The research team then added a third screen with software that differentiated the learner data in a non-distracting pacing sequence behind the live instructor. The new pattern was software controlled and sufficiently varied so as to be un-learnable. The images were varied on all three screens such that all three screens were commonly in use during the entire learning period, with varied and different input sources from doc cams – teacher cams – student cams – and teacher i/o devices. To the surprised but gratified Super Teaching team the three screen “fully automated” classroom delivery configuration produced significantly elevated performance as recorded by conventional test score measurement.

Encouraged by the jump in universal classroom performance the ST research team added more media into the super stimulation classroom. Over time experiments with four screens, five screens and six screens were applied and thoroughly tested each with differential image control on each screen. Again to the surprise of the research team performance immediately fell back for all learners when the additional media configurations were applied.

The team concluded the hippocampus was overtaxed and the brain feed back studies again suggested the brain reacted to shut down long-term posting when over taxed to a point that was “knowable” and software design predictable.

The team then returned to three screen configurations utilizing high luminosity current generation projector technology, and video wall displays in the classroom. The video wall three screen

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configuration differentiated test pacing for classroom information patterns rotating between live instruction, data from document cameras, student images and breaking (resting) patterns of nature screens such as water falls and forests the ST called wallpaper or nature scenes. The ST "pattern shift" as perfected to whole brain elevated cortex retention (measured by brain wave feed back studies and test scores) was absolutely controlled by automated software. A slider bar on the faculty control screen could increase the pacing speed between the three screens or decrease the pacing shift as a faculty "option". It was determined that for logistical studies such as math and problem solving or conjugating an English sentence pacing would vary depending on faculty delivery. For memory subjects such as history social studies and biology the pacing would ideally be slightly faster. Optimum general pacing for all learner groups for all topics became the ST software default.

The Hawaii team reported that many problem learners classified into special educational institutions were now having normalized learning performance within the Super Teaching classroom environment. For more than a decade the Hawaii team documented up to eleven common learning disorders epidemic in the general population of learners that demonstrated often-striking improvement in performance when Super Teaching was applied. These results were reported to Herman Aziwah the Super Intendant of public schools during this period – to his technical team and to Congressman Jerry Chang coordinator for the state of Hawaii at the time of the original studies. Congressman Jerry Chang has been a long advocate of global classroom outfitting for Super Teaching. The Super Intendant of Hawaii Schools approved ST classroom design for all schools in the State of Hawaii. (see Hawaii Department of Education letter).

Multi-year trials in public school classrooms at Caledonia Elementary school and in Salt Lake Community College at the

adult learner level further demonstrated normalization of problem learner issues when Super Teaching was applied to classroom design.

At the mid decade point in 2005 we know Super Teaching classroom design, continuously elevates whole cortex memory and retention across the spectrum of all learner student bodies. Super Teaching remains an important break through in whole brain learning and an even more important break through for modern classroom design. Super Teaching classrooms in public education decisively demonstrate elevated test score output elevating learner performance without modification to the faculty exiting lesson



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plan.

Dr. Annie Lang's research team at the University of Indiana had subjects watch multimedia programming and then fill out a test score sheet. Increasingly the participants "depending on the pacing and frequency of the edits as the only variable" as defined by "change from one camera image to another" (the Super Teaching effect) within the same visual scene improved memory retention and recall (MRR). The conclusion – with the correct pacing – the visual attention of the learner was more highly focused upon the viewing area and the brain elevated cell neuron state to make higher impact impressions to the learning subject matter. Later Super Teaching studies would demonstrate the optimizing form of this condition was a three screen variable image pattern shift arranged by software to optimize whole brain learning. By controlling the pattern dynamics to a precise whole brain optimized condition entire populations of learners would in each instance demonstrate improved memory retention and recall (MRR).

Examination of the premise by Dr. Lang's team also defined that increasing the edits and differential pacing of images can and does overtax the brain, generating unwanted "heat" which is cooled by various blood flow mechanism's that sharply cause attention memory retention and recall to fall. To avoid the overload condition a study of the pacing dynamics was required.

Arriving at the automation level of software managed pacing now defined by current Super Teaching classrooms required millions of lines of original software code (since patented). The code model assumes the brain is also a pattern machine ever seeking to learn and master new patterns. By retaining ST system memory for prior pattern on the three screens of real estate in each ST classroom design – the software consistently works to defeat the learners effort to recognize pattern. Because the ST pattern is virtually "knowable" the brain remains in a state of higher electrical receptiveness to imprint learning packets into multiple locations of the cerebral cortex. The impact and the impression redundancy of Super Teaching supported classroom design elevates memory retention and recall in all learner brains. This level of elevated brain function has not been reached in other classroom design configurations.

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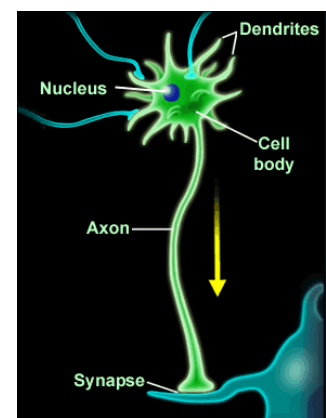
MAPQWEST – THE NEW BRAIN THEORY

Super Teaching IS part of new brain theory now rapidly developing via institutional auspices such as Dr. Gary Shornack's two-year work effort at the University of Colorado in Denver. Keep in mind, researchers have studied the micro for far less time than mankind has studied the macro. In only the space of a single generation, more hard information related to brain function has accumulated than in the span of the entire prior four thousand years of human written history.

New studies from the National Institute of Health have us keep in mind, the average six year old will consume over “nine years” of television programming by the time they reach age 65. Nine years of reruns. Nine years of multimedia preconditioning.

The April 2004 long-term studies published by the University of Washington define that synapse structure within the cortex *is altered* in all TV media conditioned brains beginning at very young ages, with accelerated synapse conditioning at age *three to nine*. The hard wiring of the majority of young multimedia brains is far *different* than is the hard wiring of young brains *not exposed* to the multimedia intensity of modern culture. The conclusion of the study was that such “altered” learners retain altered *expectancy* for learning. *Modern learners learn differently. Their brains are different.* Their brains are grown and patterned by the multimedia climate within which they were conditioned and formed. Live instruction supported by background multimedia (ideally automated multimedia) that retains the virtual interaction between student to student and faculty to student in a single integrated “theater of education”; more appropriately “pattern match” the *new brains synapse structure* triggering elevated hippocampus posting to long-term memory. Live faculty instructing within antique non-multimedia classrooms are not only at a disadvantage, they lack the tools to preclude altered learners hippocampus involuntarily deleting much of their curriculum. Virtually any faculty member anywhere in the modern world understands the “dinner is served” example as it applies to their day-to-day lesson plans. The classroom cues are consistently *failing* to bring the hippocampus “back into the curriculum and classroom”. The delete bin is filling and the faculty member is *frustrated*. The problem resides in hard brain *re-wiring* that took form in the younger ages. The *solution* resides in using the medium that created the new hard wiring (learner expectancy) to switch long-term memory retention and recall into an “on” position. What was once thought to be a slow or challenged learner becomes, in effect, a Super Learning machine when the internal brain wiring is met by more appropriate *external stimulation* cues for long-term memory retention and recall posting, via revised Super Teaching classroom refurbishing.

Modern imaging machines, only available to the current institution, are helping researchers uncover the learning pathology at the physical and *mind field* activity level within conscious learners as they learn in real time. What part of the brain is active what part is not? What part is



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active in one patient/student and how does the learning for this one student profile differ across individual learning profile patterns? How does the mind field work versus the virtual ram specialized long-term storage areas? When testing what brain function is active and what is not of the evolving cortex?

The latest research again defines a new brain compass to the notion that memory, retention, and recall are localized to very specific areas of the cortex. For example, in test measurement output, University of Stanford research *mind maps* indicate that the frontal lobes become the dominant controller for the *recollection* function. The hippocampus *ram* appears to manufacture integration for sensory experience into posting or *deleting* for long-term memory. Frontal lobe controllers “access” the huge Cortex libraries to reconstitute from independent “intelligence” selective experience that is required for the mission at hand (conscious activity in reply to real time externals – the test). These late theories based on entire mountains of accumulated data are helping to *re-define* the theory of localized brain function – what ST researchers call the learners “whole brain mapqwest” – or learner brain mapping for storage and retrieval process. *The GPS of the mind is the frontal lobes*. With proper *cues* the frontal lobes will take the student to the proper destination every time – if – the long-term memory retention and recall impression is effectively engineered into the *cell state* of the Cortex. The hippocampus is the *front-end ram* of the whole brain learning; controlling what is to be posted and the depth of the posting impression (both chemically and electrically) into the cortex. The ultimate refurbished classroom construction goal is to create a modern GPS system to more precisely aide the faculty member in every critical learning mission –whether public education – corporate – government or military – to secure measurable performance improvements for *all* learners in *every* assignment.

Super Teaching over a test of time has created involuntary elevations to all storage impressions for all learners whenever *classroom form* is modified to enhance the impact of lesson plans via the ST’s automated three screen differential classroom system. Surprisingly, more media such as four, five, six, seven, and eight screens *lowered* the performance for learners rather than enhanced it. Why?

For the past several decades of human history nano technologists have moved deep into the realm of molecules and their chemical reactions. For the first time in human history we can see the atomic level function of the molecule and the cell engines at work. We can see the synapse firing and we can paint the *mind field* into a chart or a graph. Still today almost all of the molecular models for nerve function within the brain lie in the world of classical physics where late breaking theory is moving into *quantum* whole brain theory.



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Apparently the mind field is *sufficiently variable* to serve as a quantum generator – a place of real miracles. New brain theory models are developing and it remains yet impossible to define the way in which centuries of accumulated brain theory will soon *give way* to new truths on human learning. Which axiom's and given's of today must push aside to accommodate the new *quantum experiments* now working their way through labs and universities across the world? University research seeking to better understand Super Teaching application and its consistent impact on memory retention and recall is becoming the stuff of Nobel prizes for the future.

The dynamic pattern of Super Teaching in the modern classroom produces stimulating measured brain patterns that are impossible to match – or duplicate when Super Teaching three screen matrix patterns are removed from the classroom. *Because Super Teaching classrooms are fully automated the faculty requires no retraining or curriculum adjustments.* If the topic is corporate, secular, public or military the whole brain enhanced learning ST provides one solution.

Researchers such as William James and John Watson, as leading psychologists; advanced work with people and animals who they saw as in effect “black boxes”. In such a theory the visible and measurable behaviors – count heavily - and the mental process and subjective influences on behavior *do not* count. Yet the brain “black box” model ran into repeated problems attempting to quantify learned behaviors. Explaining for example how human beings learned language became virtually impossible within the limitations of the “black box” theory for advancing performance output for human learning. The black box theory, as with so many others related to brain and learning axiom's, fell.

Two vital new theories resulted which influence whole brain theory on learning, that have stood the test of time. First, understanding computers was an important step in understanding whole brain function. Second a new theory intimated that thinking feeling and consciousness may not be tied to the locality or brain substance or area but rather a feature of the brains “pattern of connections” and that such logical pattern connectivity could be ultimately emulated by computer neural networks. The quantum mind field.

These two revolutionary ideas became the cornerstones of modern functionalism now the basic doctrine of modern cognitive science and a foundation for Super Teaching theory. Demonstrating that *synapse networks* are induced through hyper stimulation to receptive cell states led to the exploration of “*which stimulants*” produced superior neural networks for human learning and which did not. Live classroom experiments were developed to define combinations of auditory variable, image pattern color and image pacing to *determine* the pacing for measured learner performance elevation in upgraded ST classrooms.

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Over time it became clear that the three-dimensional live faculty member was essential for placing additional “cue's” into the modern educational matrix. 3D messages that would successfully cue the hippocampus to create long-term posting to learner neural pathways is optimum for memory retention and recall. The combination of multimedia in three screen differential pattern driven technology surrounding a live instructor was the one and the only system configuration that delivered consistent all learner performance output. Surprisingly the system over time would demonstrate an almost astonishing robustness to *normalize common* learning disorders, an unexpected by-product of the Super Teaching experiment. The Super Teaching trials sought to apply existing faculty to existing state accredited with *variable technology configurations* in an effort to determine if *any* configuration of technology would induce *all* learner performance *gains*. As all technology configurations failed the ST team felt the “ideal” or brain favored way to learn from technology would remain a mystery or nonexistent.

The trigger points and imaging verifications discovered in the later Super Teaching three screen variable pattern system - defined that uniform optimum memory retention and recall or MRR was achieved for entire learner populations, without exception, when three screen variable image technology was introduced to the classroom environment. The experiment became even more exciting when ST was removed from the classroom and learner performance returned to *weak* prior performance.

However, the “*ST effect*” was only consistent over long-term trials when live faculty was present to provide the three-dimensional “cues” required to defeat the hippocampus “idea” of knowing the pattern. The ST team concluded after pilot program learner experiences that when the hippocampus fails to recognize a classroom routine or pattern the hypo campus then posts more data into long-term memory as it attempts to discover the unknown pattern via elevated attention management. A core brain master program of the entire mind field system seems to identify and organize patterns. Patterns for danger. Patterns for loves. Patterns for learning. Once learned such patterns are instantly ram identified and the brain is freed to do other work as attention *is shifted* to unknown new patterns of color, light, sound movement and activity. As the brain core program is hard wired the conscious frontal lobes do not have the power to override this predisposition inside the classroom to ignore *known* patterns.

Attention is always elevated when the pattern of the teacher style, voice, movement and routine is unknown. As all teachers become known very quickly the only way to switch the teacher delivery into the *unknown pattern* is to use hardware and software to automate algorithm patterns that can never be learned by the brain core program. ST researchers have concluded that the Super Teaching hardware/software “*system*” creates new classroom *construction tools* for improved learner performance. Increasingly public and private classrooms are reporting results impossible to achieve prior to the advance of Super Teaching as a classroom design for the future.

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Virtually *half the benefit* (test score performance) of ST acceleration is removed when the live faculty member was removed from the classroom and the learning took form from automated programming. Regardless of how some narrow band of learners held a “propensity” for improved results, *automated* program curriculum delivery performance could not reach the level for all learners – that has resulted for *all* learners when ST is present in the classroom mix with live *faculty* participating.

Dimitri Christakis, associate professor of pediatrics at University of Washington and Children's Hospital in Seattle, created a study of television effects on young learners. The researchers asked parents of 1345 children “how much” television their children watched at the ages of one to three years. The children were then tested to see how well they paid attention - employing a hyperactivity behavioral profile at age seven. Christakis discovered what Super Teaching researchers had already discovered in 1990 - that with “*each additional hour*” of television a child viewed *prior to age four* on a day-to-day basis a child's risk of having attention problems by age seven increased by 9% and in some cases more. Christakis hypothesizes the mechanism damaging young learner attention must be “the pacing” of the television “patterns” that create a whole brain later “*expectancy for pattern*” that when absent attention is tuned off. As attention is managed in basic three second sound blocks such that the learner can bring into the foreground the teacher and the teacher lecture - then the image, the supporting AV (if any), the surrounding student body and their activity are such that *only one three second item* can be in foreground while the others are in background at any one time. Super Teaching attends to the issue by coordinated pacing of three-second brain attention patterns within the context of three screens of different images combined with a 3D instructor - all of which are dynamic and moving. As the student body is also engaged in the medium of Super Teaching, much of the “*distraction*” of moving from the three second learning block (foreground) concentration pattern of the *surrounding student body* is removed when the brain expects at any moment the Super Teaching camera's may move to the individual. As the individual may at any time become part of the learner pacing the attention remains more riveted on topic. Media conditioned learners remain relaxed and attentive when Super Teaching is operating behind live instructors. Media conditioned learners display *increasing trends to “mind wander”* in classrooms *not* constructed with Super Teaching supports behind the live faculty.

The ST research team later discovered in subsequent experiments that automated programming (prepared self learning programs on CD or DVD interactive media coupled to a live facilitator in the ST outfitted classroom) where students were enabled by color coded “squares” on each of the three screens reserved *one color square per student* (so that faculty and students could observe progress one to the other) *also* elevated performance output. Interactive cues became another significant trigger for long-term elevation of hippocampus to cortex curriculum posting. The content was not important. *The form dominated the result.* The Information Delivery System became more of a priority for reshaping classroom performance than content. Students

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in cubicle classroom models could not render performance to match the same product operating via an ST three screen classroom.

ST enhances social accelerations via student to student cross learning (three screens with many color squares each with i/o wireless input such as pop quiz information and multiple choice program options one per student) which were not duplicated in cubical environments for learning on the same material. The conclusion reached by the Super Teaching team over a multi year trial period in the State of Hawaii, concludes “live instruction within a

three screen variable image pattern automated environment using a precise ‘brain shifting pattern’ hyper stimulates neural networks. Further in distance learning applications the performance on MRR was enhanced substantially when the live faculty member (3D) was present to facilitate distance learning versus recorded on media (2D). The United States following 9/11 in 2001, was in retrospect *correct* in mandating multimedia new technologies be *automatically included into Title I funding* set asides for existing classroom retrofitting. *Super Teaching became a preferred mandate of the nation as a trend model for future classroom design- qualifying for Title I Federal Funding.* (See McDermott Will & Emery letter on this website).

The layered further study work of John von Neumann saw *action potentials* as digital signals inside neural networks – where each action potential represented an opportunity to elevate human memory retention and recall. Von Neumann postulated any learning machine had to exhibit reasonably complex *network* behavior and incorporate storage and memory to achieve optimum functionality. Theoretical learning scientists working with artificial intelligence pioneer Warren McCulloch showed that neurons could indeed carry out independent logical functions at a complex level – evidence of the hippocampus cortex posting system as uniquely independently intelligent. In 1960 German professor Karl Steinbuch of Karlsruhe University developed an artificial associate memory, the first so called neural net – *or learning matrix* – a brain emulating system of storing information in “a pattern of connections” between digital processing elements. The April 2004 University of Washington study on neural networks hyper stimulated during formation years for young learners were in fact “altered” from non media stimulated learners at the same age levels lacking multimedia stimulation. Brain appetites shown as *triggers* that turned on and turned off memory retention and recall (MRR) via involuntary *mind switches* - switches which are now known to exist in science. The ST team had earlier demonstrated the theory that such mind switches must in fact be in place to underwrite the whole brain learning theory developed by ST. Mind mapping demonstrated that even the youngest learning groups exhibited a new *hard wiring* synapse predisposition to “channel switch” the live educator or recorded media lacking multimedia pattern stimulations. The ST team referred to student



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channel switching of the known pattern – the faculty member and curriculum sequence – as “mind wandering”. *Mind wandering was brain mapped to be epidemic in the learner population.* Learners are channel switching (off) the teacher at a surprising level not seen in earlier research. The trend to channel switch the teacher is a trend that is growing as multimedia conditioned brains reach the antique classroom. The new science of brain pacing – matching visual, auditory and 2D to 3D image patterns in such a manner as to preclude “learner channel switching” — *or involuntary discretionary cortex posting by the hippocampus* - required a new frame work for *classroom design*. The old classroom construction model would no longer work for brains that required new technology for learner normalization.

Pre multimedia classroom design of the past two centuries demonstrated a marked fall off in learner concentration as measured by learner performance output in base subjects from 1960 through the present. Although the curriculum body was obviously far superior in content to earlier years, the learner was performing at sub standard levels in all memory retention and recall (MRR) output (test score) measured standards. Why?

The new brain neural pathways of today's Super Learners require a hyper stimulated classroom refurbished to engage elevated MRR for the multimedia-conditioned learner. Conclusions drawn by Professor Emeritus and New York Times best selling author Dr. Lee Pulos of the University of British Columbia following a decade of hands on work with Super Teaching published (on this www.superteaching.org website) that single screen, two screen as well as four to six screen multimedia operating behind live faculty, as well as pre recorded media without 3D live faculty cue modeling – fail to produce the desired minimum performance output for all learner groups. Dr. Pulos as a New York Times award winning educational author suggest that he can now report that all learner groups appear to have sharply elevated performance gains, all of which are obvious and measurable, *whenever three screens* with variable ST pattern pacing is retrofitted into classroom design. Again why?

Three ST matrix model - appears to provide the most precise and natural whole brain learner response.

New synapse pathways do in fact have a “favorite way” to learn. Discovering this new “favorite way” to induce involuntary whole brain learner performance in now called the “ST Effect”. Surprisingly the challenged learner is also positively affected, showing promise for families and educational service institutions.

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THIRD PARTIES ON SUPER TEACHING

Learners report a unique relaxation even a reduction of a reported sense of virtual “torture” or “tension” that modern educational classrooms can convey. Super Teaching appears to give faculty more options and learners a higher expectancy for improved performance.

Faculty can apply various input sources to the learning experience “at will” in the ST matrix classroom design - including overhead information, DVD, PowerPoint, CD, Computer, Palm, IPOD, wireless keyboards, Internet, VHS, Distance learning – camera's, and all like i/o devices. The global village language free ST interface has been applauded by faculty and AIA classroom design specialists. The result is a friendly GUI that takes less than one hour for faculty to master without modification to faculty lesson plan – in any culture in any language in any classroom any place in the world. The feature of ST *adaptability* is an important *design feature* of the technology as an innovative classroom architecture to be available universally.

The ST software default setting, without faculty override - provides automatically a continuous “ST pattern” pacing the visual data between ST's three screens in an flow dynamic tested to reduce “whole brain channel switching”. The channel switching learner now makes up the larger population of any classroom. A new axiom of the ST experiment is that “all minds are affected” by the new synapse structure impacting learner concentration. *Non-multimedia classrooms have become dysfunctional, hindering the excellent work live faculty delivers day to day.* If the young learners mind is a star ship going warp eight the ability of “newly wired” multimedia minds to be stuffed into a VW rabbit being told time and time again – the entire brain will reach its learning destination in record time – becomes an oxymoron for the warp drive learner (a lie).

The ILT determined in 1995 that over stimulating the cortex posting creates measurable blood flow increase that works to off load “waste heat” within both hemispheres of the over stimulated brain. The hyper chemical stimulation of the synapse structure resulting from ST tests to over stimulate (four and five screen variable pattern testing) created automated movement to turn off brain switches. *The brain self cools.* In the process of cooling from over stimulated (heat) the brain turns off synapse posting to entire brain areas *critical to memory* retention and recall. In effect the gains acquired by Super Teaching at *one pacing* level are *defeated* at another level of delivery speed (information pacing). This repeated pattern defined the *software control system* for Super Teaching. The software control for educational pacing became a critical point of any accelerated learning information delivery system (IDS). Super Teaching became an ideal IDS for the multimedia conditioned learner, as well as a power tool for the faculty observing learning deficiency problems in their population of learners.

If the curriculum information pacing is reduced to a level more customary to conventional classroom design with one or two screens using single input/output sources – or lacking *automated pacing controls* for critical pacing when accelerating curriculum, the brain reduced recordation of data and memory retention and recall such that learner performance *dropped*. The critical

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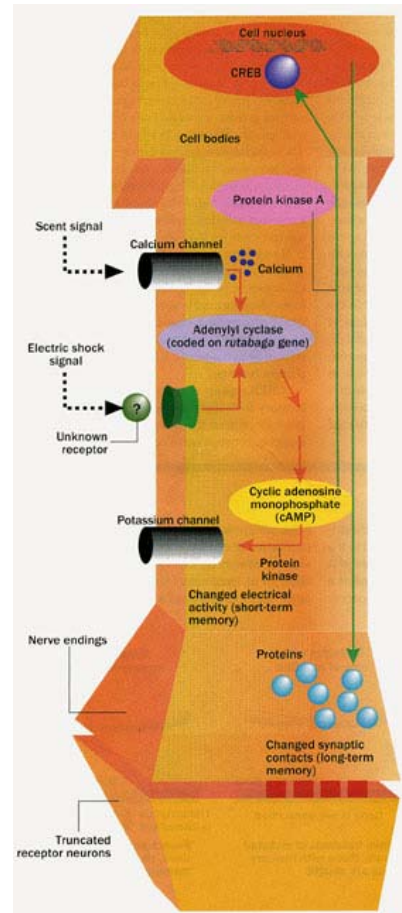
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optimizer in all classrooms models for education acceleration technology defaulted to the ST three-screen learning matrix. The system perfected an automation level that “remembered” unlimited pattern “placement” upon each of the individual screens and next mixed patterns so as to be “unlearnable”. Because the ST pattern on screens behind the live faculty member is always varied and fresh the live faculty 3D cue patterns operate as a seamless “learning system”. This new classroom learning model (Super Teaching) produced elevated human output (test scores) every time in every class for every learner.

Dr. Lee Pulos has published that Super Teaching may be the most important human potential breakthrough in 1000 years of classroom learning at the institutional level. Dr. Pulos goes on to report that it is now possible to globally impact in a generation on a planet wide scale – educational uniformity to billions of brains – in a single generation which otherwise might have taken centuries to effect. Dr. Pulos has called for greater *resource allocation* to improve the pace of refurbishing antique classrooms into multimedia Super Teaching designs. Dr. Schornack reports Super Teaching is among the most promising and exciting upgrades to modern classroom design. Dr. William Skilling a new leading Midwestern classroom design specialist reports that Super Teaching installed into the modern classroom provides tools every faculty professional can use to effect learner performance elevation. Nick Sheltrown suggests, as a leading faculty trainer, that “Super Teaching bridges the digital divide in such a way to make faculty *adaptation* minimal a key aspect to any large scale implementation”.

Countless learners at all age levels are reporting that Super Teaching classrooms produce a less tense classroom. Learners report they enjoy elevated anticipation for the subject matter. Learners also report time goes by faster. Learners are pleased to develop superior performance they report that is not matched in classrooms not outfitted with Super Teaching. Young learners especially request that other classrooms be outfitted with Super Teaching to make it “easier” for them to learn. Faculty report on the challenged learner or kinesthetic learner that previously was acting out but is now paying greater attention as *discipline issues lower* and learner concentration elevates.



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Administration officials are gratified to report higher institutional grade performance and are pleased ST faculty training to operate Super Teaching is less than one day. Faculty report Super Teaching *attracts* money to institutions and *keeps* money in institutions by elevating grade performance in the first quarter of use. The simplicity of the faculty-operating interface assures ST technology will be applied versus as with so many complex technologies remain “under utilization”. Administration officials are reporting lost revenue from special education learners is recovered sufficiently to offset the installation cost of Super Teaching. Budget planners note that Super Teaching showcase classrooms create sponsor funding for institutions such that Super Teaching becomes a sponsor magnet for *new funds* to the district conducting a ST showcase.

Congressman Jerry Chang of the State of Hawaii suggests along with Senator Inyoe, Deputy Chairman of the Senate Committee on Education in 2001 – “we will work tirelessly to bring Super Teaching to the nation.

Tim Waters head of McDermott, Will & Emery one of the larger law firms in public education – reports that his firm will remain active to lobby Congress for appropriation funding supporting the USA Super Teaching project.

Faith High School in Adelaide, Australia's Brian Eckerman following board approval for Super Teaching noted the Government of Australia will waive all duty for importation of Super Teaching to the nation.

China's Wayne Gan has stated that bringing Super Teaching to the Chinese public school system is a legacy project that cannot be matched by other endeavors. Mr. Gan is working on the dream of bringing Super Teaching to the Chinese Olympic venue's.

Michael Starkweather patent attorney in Utah - formerly with the United States Patent office – states the global Super Teaching patent project is the most important new technology patent in the history of modern invention – representing to whole brain learning and new classroom design what the light bulb represented to the candle.

James Burk author of *How to Grow Your Business*, and a Washington DC Attorney, reported that bringing Super Teaching to the beltway school district so that every Congressman and Senator can field trip in their own district for their own children has become a personal mission.

Jack Canfield author of the 2005 release of *Success Principles* and founder of the *Chicken Soup* publication series reports “having served on the national task force for self esteem and now representing over one hundred million readers worldwide, I place my reputation following years of contribution to the Super Teaching project in my request to every school administrator.

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THIRD PARTIES ON SUPER TEACHING

Lisa Nichols author of *Chicken Soup for the African American Soul* and educator in countless high schools via *Motivating the Teen Spirit* class curriculum reports “disadvantaged young learners are unfairly tested every hour we delay bringing Super Teaching resources to their aide. Having worked over one thousand hours inside Super Teaching classroom I can report there is no equal no superior advantage to faculty and no performance elevator to match the results learners achieve when the decision to apply bond funds to retrofit classrooms with ST technology is made. *In six weeks you can transform your schools.* I work every day under contract with the nations public school as teen faculty and I encourage high schools nationwide to *accelerate* this process.

Jill Lublin, best selling author of *Networking Magic*, suggests every corporate training center should be outfitted with Super Teaching to secure uniform and elevated employee retention.

Rand Brenner MBA, faculty from Pepperdine, suggests Super Teaching is a revolution for faculty providing precise tools invisibly operating with automation to enhance every hour with unequaled learner attention and output performance. *“Super Teaching is like turning on a magic brain switch that changes everything the day the faculty member first applies it.”*

John Gray of *Men Are From Mars and Women Are From Venus* suggests having offered trainings in thousands of schools and corporate training centers it is my opinion Super Teaching will be *nominated* and *will be awarded* a Nobel Prize as the impact of this whole brain classroom performance has for world peace.

GRB Entertainment in Hollywood now creating television products featuring Super Teaching reports that through their products millions will come to understand Super Teaching as a household axiom for modern classroom design. By using movie stars and icons of entertainment to propel Super Teaching benefits GRB founder Gary Benz suggests “the time to see Super Teaching in every classroom can be closer than we think”.

Sharon Espinosa founder of American Dreamer Film Studios suggests “a number of movies we are planning for the future will feature Super Teaching as Super Teaching comes into the conscious awareness through the most powerful medium on earth”.

Lynn Dohrmann, who co founded the Super Teaching project, suggests “as a mother, an educator and a leading CEO I call upon the nations leading companies to adopt Super Teaching as your public charity to assist public education now, our children can not wait”.

Dr. Valerie Donaldson, MD, Pittsburg and her scientist husband Barry McKnew both leading whole brain function researchers in human wellness report – “Super Teaching is a science of optimized learner brain retention recall and memory that is repeatable predictable and measur-

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able. To postpone application of a literal *break through* in human learning would be equal to failing to teach our young how to gather nuts and berries to survive the winter”.

This website presents more third party observations derived from personal experience in Super Teaching classrooms.

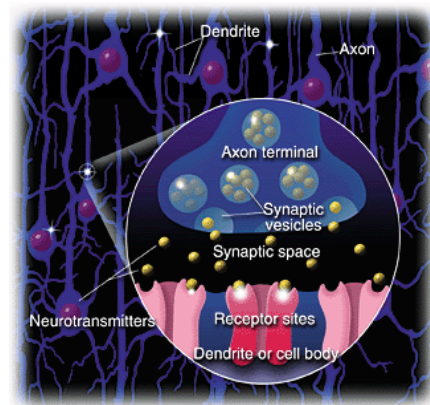
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CLOSING SUPER TEACHING THEORY NOTES

The educator is working with “thinking cells” operating beyond their teaching art to control within antique classroom designs that distract rather than impact, the education faculty produce. In 1900 Charles Sherrington became the first scientist to demonstrate that the brain held “thinking cells” that exhibited the existence of inhibitory nerve cells that could turn signals on or turn signals off often on an *involuntary basis* depending on the stimulation taking place (or source). But how did the impulses jump from neuron to neuron?

Sherrington compared the brain to a telegraph series of stations with signals moving from point to point. Three years earlier Sherrington (father of whole brain learning theory) had already labeled the contact points synapses, which literally meant “connections”. Still this early theory failed to describe how the impulse (learning impression) could cross the “gap” between synapse fields. Later American pharmacologist Otto Loewi delivered the final experiment that proved *reproducibly* that a stimulated nerve cell does in fact secrete a substance. His English colleague Henry Dale following up on the Loewi experiments discovered that this core substance was acetylcholine.



In parallel the first recording of an impulse inside a nerve cell – today called an action potential – was made in 1939 by Alan Hodgkin and Andrew Huxley two English biophysicists. This action potential proved to be the universal signaling mechanism in nerve cells throughout not only the human but the entire animal kingdom – a literal breakthrough in learning theory.

The next major breakthrough would take half a century later. Bernhard Katz uncoded the next mystery with the advent from his London College experiments in the 1950's that the synapse substance conveying the “information” critical to the learning and all memory retention and recall was to become known as “neurotransmitters”. This next break through proved the vital information was secreted in “packets” depending on the neurons *electric conductivity “state”*.

Perhaps most important for later Super Teaching theory was the foreknowledge that the neuron electrical conductivity “state” could be *altered or influenced* to be in a higher or lower state of reception impacting impressions for the information packet that would correspondingly be lower or higher. As this involuntary state is occurring throughout each and every Super Teaching learning period in modern classrooms whole brain retention advantages are gained. To the degree the brain state is elevated or not elevated (switched on or off) the memory retention and recall are by degree more deeply “impressed” into the cortex or squandered and virtually lost forever to human memory. If the brain of the child can now be *optimized* for learning, how

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illuminated might a generation of Super Teaching graduates become to the world community?

Human understanding and learning is in part induced by an *involuntary electric neuron "state" level*. Another important ST axiom: *Unassisted faculty can not by teacher art alone elevate the impression level of large groups of highly differential learners as to neuron "state"*.

Super Teaching produces an optimal learning state throughout the entire student body of any age of learner groupings by *elevating the receptor states* in applied whole brain learning – a state inducement that has not proven possible when Super Teaching is absent from modern classroom design.

Initially the discovery of excitatory and inhibitory synapses in the brain, fed learning theory speculation that whole brain processes recorded information according to *fixed* and *predictable* process stimulations. However Canadian psychologist Donald Hebb entertained the theory that the recording impression value of information packets *could change* depending upon the cells core *state* of activity (1949). In recent decades this postulate has been confirmed and duplicated many times. The foundation of Super Teaching theory embraces the notion that the receptor learning cell state may be, by degree, *switched on or off to record more deep impressions* for any learner curriculum. The switch could be turned off if mismanaged to produce less of an impression depending upon largely *involuntary* and *highly variable* cell states cycling at all times during any learning period across all the brains of newly wired student body. Unassisted teacher art cannot *by style* and curriculum shift the memory retention and recall of the core cell state sufficiently to *elevate performance* for the now universally challenged learner group. Further the development of new multimedia induced synapse patterns provides an impossible digital divide for the cell state of the learner until the classroom design modifications are made to *reset the cell state* to higher reception for the learner information packet. *Super Teaching represents a break through in resetting synapse reception cell state to acquire deeper impression for the faculty learner information packet (curriculum)*.

Donald Hebb without meaning to father Super Teaching theory in 1949 entered the critical theoretical break through experiments that reported, "the *intensity* of communication between two neurons *can be modified* by experience.

Nerve cells indeed "*can*" learn.

BJ Dohrmann – Spring 2005

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- The dominant elements of learning that had direct access to the individual were home, school and church.
- A consistent message was sent by the three dominant elements and was generally reinforced by other elements of learning - the old paradigm has ENDED as society moves from the

INFORMATION AGE into the COMMUNICATION AGE.....

- The character of the individual and the criteria for future success were substantially agreed to by society and were clearly defined and communicated.
- A new society is evolving from radical new forms of learning.
- Increasingly, learning now takes place randomly and learners receive conflicting messages from mindless, random COMMUNICATION Sources.....
- There is no dominant or integrated element of learning - all elements can have equally forceful impact on the individual learner in the COMMUNICATION AGE.

Industrial Age Societal Learning System

Other elements of the societal learning system, including apprenticeships, work training, entertainment, etc.

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