

Superbrain Yoga – Improving Academic and Behavioral Performances in Adolescents

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During the 2003-2004 school year, a study was conducted to measure the effects of the Superbrain Yoga with fifty-six (56) middle school students in Norristown, Pennsylvania, who were experiencing academic and behavioral problems. Thirty-seven (37) children served as a study group, while nineteen (19) children served as the control group. The study group performed the Superbrain Yoga at least twice a week, before tests, and when the students were noted to be tired, restless, emotional, or needed to assimilate academic information.

The Gates MacGinitie Tests was used to evaluate the effectiveness of the study. The Gates MacGinitie reading inventory was used to regulate the effectiveness of this program to monitor:

- Grade level progress
- Ascertain which students are reading on grade level
- Identify students for individual diagnosis in reading and vocabulary
- Organize students into instructional groups.

The results of the study showed a significant increase in the performance scores on the Gates MacGinitie Test in the study group. The total percentage change in the test scores was 21.487% in the study group, versus 2.7125% in the control group. There was a dramatic increase in student participation in and out of the classroom in the study group and seventeen (17) students were moved to a higher academic section. *Six (6) of the ten (10) students who were inducted into the National Junior Honor Society in the year of the study, were participants of the Superbrain Yoga study. One student from the study group after the study qualified as gifted.*

The observational studies include an increase in the concentration of the students and a noticeable improvement in behaviors. The students were less likely to react and completed complex tasks without frustration. Many of the students participating in the study excelled in areas outside of their classroom, winning many awards and being noted as outstanding contributors to their school. *Faces that used to be taut with anxiety and fear from school projects, are now smiling and have an observable glow. These exercises create a positive connection, between learning, taking risks and connecting with others.*

The student response has been very strong. Many students ask for the Superbrain Yoga as they move ahead in their grades and find that not every classroom is doing the yoga. One student focused the commencement speech of the graduating class, on the changes the students experienced within a classroom of this setting. It has been 3 years since the original study and the students to this day continue to connect these exercises with the academic and behavioral shifts within themselves.

The following student responses, are but a fraction of the positive connection the students make with the exercises and the positive changes.

When I get frustrated and I can't think right, I do the physical exercises. Last year when I did it, it helped me complete my assignments.

Shyam Patel

I noticed an extreme change (improvement) in my learning. I was very (much) into my education last year and still am this year.

Sean Moran

I wish we still did the warm up exercises and the Superbrain Yoga in class. I like who I am when I do these (exercises). I feel my best self.

M Liriano

As a student of Grand Master Choa Kok Sui, I have experienced a tremendous growth in my life. One of the tools I use daily, is performing the Superbrain Yoga presented in this study. The opportunity to share this with my students, as encouraged by Dr. Glenn Mendoza, was a very exciting event.

I am more than pleased, but not surprised at the results. *The most astounding result of the study is seeing the students' level of success now in their eighth grade year. Their performances both behaviorally and academically are forcing the teachers to constantly readjust the groups, due to the students surpassing the standards set in the class.* I also see these students more active in school activities, smiling, enthusiastic about their work, and enjoying school. This is most noticeable with the students previously in section five (lowest in academics and behavior).

As a teacher practicing Pranic Healing (Pranic Energy Healing), I feel I am learning the tools needed to be a more effective teacher. I am deeply grateful for the work of Grand Master Choa Kok Sui, and the opportunity to share the tools that transform lives.

(Signed) Kim Siar
October 26, 2005

Note: The complete report on the Superbrain Yoga Study follows.

Superbrain Yoga-Improving the Academic and Behavioral Performances of an Adolescent

Complete Report

Note: *The Superbrain Yoga mentioned above will be performed in future studies with the thumbs outside. This was not stressed in the original study. This means that in the future, the resulting effects have a good chance of **surpassing** the previous study.*

This study was conducted at East Norristown Middle School of the Norristown School District in Norristown, Pennsylvania, U.S.A. Fifty-six (56) middle school students experiencing emotional, academic, or behavioral problems were used in this study.

Two classes totaling thirty-seven (37), served as the experimental group, while nineteen (19) adolescents, served as the control group. The Superbrain Yoga was performed regularly twice a week, before tests and when the students were noted to be visibly tired, or needed to assimilate academic information.

The experimental group included students from academic section three (average) and section five (lowest), while students in the fourth section (below average), served as the control group. *None of the students in section one (gifted) and section two (proficient or above average), participated in the experiment.*

The Gates MacGinitie Standardized Test was used to evaluate the effectiveness of this study. The interval between the Gates Tests was eight months. The Gates MacGinitie Reading Inventory was used to regulate the effectiveness of the program. It is administered each September and May to monitor:

- Grade level progress
- Ascertain which students are reading on grade level
- Identify students for individual diagnosis in reading and vocabulary
- Organize students into instructional groups.

Students perceive these groups, as a reflection of who they are as a person. They do not realize that they themselves, in increasing their tests scores, would create an academic shift.

The following cases did not participate in any form of counseling throughout this study.

The Gates Test was the data used to regulate the effectiveness of this program. This is a vocabulary and comprehension test used to determine the general reading achievement of individual students throughout their school careers. It is administered in the fall and spring of each school year. The scores range from the highest scores of advanced, then proficient, to the scores deemed below level basic, and then below basic. This test determines the learning environment in which the student will experience in the following year. Each grade level is sectioned into five

academic sections. Section one and two includes the students who are performing at a high academic level. Section three is deemed the average students. The fourth and fifth section, is typically a group of students not succeeding academically or behaviorally. This study was conducted with the students in sections 7-3 (average), and 7-5 (lowest), while the students in section 7-4 (below average), served as the control group.

The results support the effectiveness of these exercises, with an increase in test scores for the students in section 7-3 (average), and 7-5 (lowest). There was more than a 21.487 percent increase in the raw test scores of the experimental group, versus 2.7125 percent in the control group. There was also a .6857 increase of the proficiency level of the students. The students in the control group did not perform at the level of the other students. In this group there was a 2.7125 percent increase in the overall raw score and a .5833 percentage increase in the proficiency level of the students. While the proficiency level increase is almost similar in all three groups, the status of the increase in level differs. Many of the students in sections 7-3 (average) and 7-5 (lowest), are now scoring in a proficient, or advanced range; while the students in the control group, section 7-4 (below average), scored at a basic level. Students, who performed the physical exercises as a class, scored higher on the Gates Test than those who did not.

Purpose:

The study was conducted to evaluate the effects of the Superbrain Yoga on middle school students averaging thirteen years old, who were experiencing academic and behavioral problems.

Methods:

This study was conducted at East Norristown Middle School of the Norristown School District in Norristown, Pennsylvania. Fifty-six (56), middle school students from Norristown, Pennsylvania, (USA); experiencing emotional, academic, or behavioral problems were used in this study.

Two classes totaling thirty-seven (37), served as the experimental group while nineteen (19) adolescents, served as the control group. The Superbrain Yoga was performed regularly twice a week before tests, and when the students were noted to be visibly tired, or needed to assimilate academic information.

A simple sequence of muscular exercises was used as a warm up preceding the use of the Superbrain Yoga. During this experiment, the Superbrain Yoga was repeated 30 times.

Results:

The results of this study included an increase in the performance scores on the standardized test, improved shifts in the academic sections, and an increase in student participation in and out of the classroom. A higher level of engagement in higher order thinking skills and positive observational differences was noted in the emotional responses of the students.

Increase in Standardized Test Scores:

In the last decade a significant amount of time and money have been spent determining the skills needed to learn. A long list of standards has been created by the state government, shaping the instructions required by the teachers to cover throughout the school year.

A student's academic success is measured using the state standardized test scores as a gauge. An adolescent who determines these tests as meaningless or taxing often struggle with their performances.

The raw score was compared for each of the 56 students participating in the study from the September (2003) to May (2004).

The comparison shows that the experimental group met with a higher level of success on their test scores.

A Significant Shift in Academic Sections:

One of the social stigmas in this school system is the student's perception of themselves in relation to their academic section. This can affect the developing self-concept of an adolescent, positively or adversely.

In relation to brain based learning, the more a young adult experiences a pleasant association with learning, the more the mental gates open to the retention and application of information.

This is most noticeable with the students previously in the lowest academic section. Before the study they met with very minimal success and were often despondent when it came to academics or even the idea of succeeding. *The changes are very dramatic.*

Seventeen (17) of the students from the experimental group were moved to a higher academic section, while six (6) from the control group moved to a higher section. A noticeably high number of students continue to be moved to higher sections. Their performances, both behaviorally and academically are forcing the teachers to constantly readjust the groups, due to the students surpassing the standards set in the class.

Observational Differences In Students Emotional Responses:

Teachers motivating adolescents to learn new material must first make it past the amygdala. This area, especially in the teenage brain; can override the logic, the lesson, and learning, if the emotional reaction is not relevant to learning. Negative emotional responses toward a task or test, can prevent the student from succeeding. The improvement in the emotional responses of students is a significant area of improvement.

Before the study, many students associated learning with negative feelings. As students participated in the study, there was a noticeable change in their emotional responses. The students were not only open to learning; they began to approach it from a different level. Students were motivated and the response rate in completing independent learning assignments increased.

It was a dramatic change that again fueled the students with feelings of success. The most common comments now heard were, "Why do I feel so smart in this class?", or "I didn't even know I was this smart!" *At the end of the school year, seven (7) students from the lowest academic section were now moved to a higher section.*

There were a significant number of students with low self-esteem, they did not see themselves as learners, struggled to pay attention, gave up before attempting to complete a difficult task. After the program the students went from unresponsive to enthusiastic and started participating and collaborating with groups while smiling. *The parents of two different students wrote letters in acknowledgment and appreciation for the dramatic changes in their children.*

Collectively, the groups participating in the student study related to others more. There seemed to be a noticeable shift to compassion, kindness, generosity and a greater sense of collaboration.

The students made a shift from focusing on themselves, to focusing on others and then applying it to solve social problems. The experimental group reflected on the study, commented that in participating in the study they felt like their minds were opened, and they can now see things from a different perspective. They felt more peaceful, more aware and were able to handle life better. One student felt he had lost weight. The students also felt that learning was easier and more relevant.

Observations from the Instructor

Academic

- Test scores improved.
- Stress and fear energy dissipated from the room at a level that allowed students to move through their emotion, rather than be overcome by it.
- Students moved from anxiety to tests, to exhibiting confidence.
- *Students verbally noted the difference in test scores and the struggle in performing the tests when they did not do the physical exercises in the other classes.*
- *The students continue to meet with academic success, which is moving teachers to continuously restructure their academic groups.*

Behavioral

- A number of students refused to participate; but the majority were highly enthusiastic, and requested exercises when they noted changes in the environment.
- Students were noticeably uncomfortable during the hip rolls.
- A small number of students laughed; this tempered involvement according to the level of performance from their peers.
- A number of students accepted the program in their minds, but found it difficult at times to complete exercises in the classroom with full focus.
- Due to a rotating schedule the exercises were not performed at the same time each day.
- Exercises were combined with the intent of activating the energy within the body and with the energizing and activation of the brain.
- *Majority of students participating credited the exercises to their improved states of learning.*
- *Students continuously commented on the positive sensation they experienced when energizing and activating the brain.*
- *Students who fully participated enjoyed the program and credited it for their improved test scores.*
- *Students who were not in the class wanted to participate in the program.*

Some Student Responses

The following student responses are but a fraction of the positive connection the students make with the exercises and the positive changes.

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Engaging in Higher Order Thinking Skills

The developing frontal lobes of the adolescent brain are an area of great potential when developed properly. It is an area responsible for cognitive processing. The ability to analyze, apply, and evaluate is a function that allows the brain to work more efficiently. With cognitive maturation there is a greater alignment with moral development. Bloom's Taxonomy is a device used by many teachers to illicit higher order responses. Motivating the students to attempt these tasks is often difficult. Many students would rather leave a complex task blank and fail, than expend energy that is needed to complete the task.

Although all three groups were learning the same material, it is interesting to note that the experimental group could actively engage in higher order thinking skills more readily. The way the students were tackling topics allowed profound conversations that reflected the characteristics of higher order thinking skills. With the experimental group, it was easier to cover more material in less time with greater retention. The students moved from a habit of memorizing material to developing an understanding of it, evaluating, and applying the topic.

An Increase in Participation

In the classroom, participation increased. Task times improved significantly, which allowed the teacher to cover more material with greater amount of student retention. In a time where President Bush's, "No Child Left Behind" is a national mandate, fewer students fell though the learning gap.

Extra curricular school participation also improved. Twelve (12) students from a student body of 140 students met the grade point average required to apply for National Junior Honor Society. Ten (10) of the twelve (12) students passed further criteria. *Six (6) of the ten (10) students were from the experimental group.*

The president of the Student Council for the 2004-2005 school year was also a member of the experimental group.

The Teacher's Testimonial

As a student of Grand Master Choa Kok Sui, I have experienced a tremendous growth in my life. One of the tools I use daily is performing the Superbrain Yoga presented in this study. The opportunity to share this with my students, as encouraged by Dr. Glenn Mendoza, was a very exciting event.

In fourteen years of teaching I have never had the chance to see so many students transform so profoundly on the mental and emotional levels in such a short period of time. The Superbrain Yoga provides a tool that allows students to empower themselves. This in turn, motivates students to learn in class and on their own. It provides each of them a tool to succeed, and creates a shift in the way they view themselves and the world around them.

The students, whether participating or watching others, were introduced to a new thought process, which will continue to enrich their lives on many levels. It allowed them to see that learning is an interactive experience, and that preparing the body and mind for learning allows more opportunity for growth. They also learned that their participation in learning promotes more opportunities, as well as greater success. *Enthusiasm was an added bonus and many students fondly speak of the study and wish they were still able to do these in their present classes.*

I am more than pleased, but not surprised at the results. *The most astounding result of the study is seeing the students' level of success now in their eighth grade year. Their performances both behaviorally and academically are forcing the teachers to constantly readjust the groups, due to the students surpassing the standards set in the class.*

I also see these students more active in school activities, smiling, enthusiastic about their work, and enjoying school. This is most noticeable with the students previously in 7-5 (the lowest section). Before the study they met with very minimal success and were often despondent when it came to academics or even the idea of succeeding. *The changes are very dramatic.*

As a teacher practicing Pranic Healing (Pranic Energy Healing), I feel I am learning the tools needed to be a more effective teacher. I am deeply grateful for the work of Grand Master Choa Kok Sui, and the opportunity to share the tools that transform lives.

The Conclusion:

From this study, we conclude that there is a positive relationship and significant improvement in the academic and behavioral performance of a middle school adolescent by using the Superbrain Yoga.

The majority of the students who performed the Superbrain Yoga not only increased their test scores, they were also assigned a higher academic class level for their eighth grade school year. A noticeably high number of students, continue to be moved to higher sections as the year continues. There has also been an obvious difference in behavior, as well as an increase in the active participation of school activities.

Students who were participating in the study also looked different physically. They went from heads down, glazed look and shoulders hunched, to a brighter, more lighthearted appearance. Their shoulders and physical stance became more erect. Their complexion appeared fresher. They seemed less dense. They smiled often and came into the classroom enthusiastic to learn. Many of the students chose to work through their lunches, in order to complete independent projects for the classroom.

After this study, two of the students qualified as gifted. One student from the experimental group was tested and accepted to the gifted program. Before the experiment, he had some emotional problems, was distant and introvert. He became more and more open and productive as he did the Superbrain Yoga and was from group three (average) students.

The Superbrain Yoga designed by Grand Master Choa Kok Sui provides the students, with a tool for success when learning new materials, preparing for tests, and setting academic goals for success.

(Signed) Kim Siar
October 26, 2005