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## **BRAIN RESPIRATION TO IMPROVE STUDENT BRAIN WORK**

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### **Introduction**

Independent Campus is a part of Independent Learning policy by Ministry of Education, Culture, Research, and Technology, Republic of Indonesia. This program provides an opportunity for students to hone their talents and interests. Students also have the opportunity to enter the world of work directly (Makariem, Nadiem.A., 2020). Even though there is already an Independent Campus program, students are still facing a learning situation in the midst of Covid-19 pandemic. This condition increased the use of media applications such as teleconferencing. Learning process is also done by online. Prolonged time facing screens, tablets, and smart devices increases student stress and anxiety and reduce brain performance in thinking (Mheidly, Nour., Fares, Mohamad Y., Fares, Jawad., 2020). Beside it, prolonged online learning also can cause boredom (Puspandari, D. A., Zulaiha, R., & Hafidz, F., 2021). Stress, boredom, and anxiety can cause negative effects on student academic performance (Hsu, Jeremy.L., Goldsmith, Gregory.R., 2021). This condition must be managed, so that student's learning ability still remain good. The one of way to manage stress and boredom is by giving education to the brain. Brain Respiration can become as the one of way to educate human brain (Crawford, Ericka, 2019).

Brain Respiration is one of training method of mind, body, and soul which designed for brain transformation to become a new human (Lee, Ichi, 2007). Brain Respiration is a powerful technique to increase the energy on human brain. The working of Brain Respiration is simple. Brain Respiration just use a unique technique of breathing. It can make the brain active by using the "Bio-energy" as the power of human life. By using Brain Respiration, the blood circulation and the energy on the body have been activated. By activating the blood circulation and human energy, more blood is brought to the brain smoothly. It is really helpful to overcome stress, improve brain work, and create a peaceful state of mind. Brain Respiration is not only work on the function of the left hemisphere of brain, where the most of people have greater development, but it restores the whole brain function. It helps human to optimize the brain work. Brain Respiration program consist of three simple area. The first is Wake-Up Gym, the second is Energy Focusing, and the third is Brain Building (Hayes, Sarah., Lampi, Marianne., & Leigh, G.K, 2002).

### **Discussion**

#### **1. Wake-Up Gym**

Wake-Up Gym is a stretching program that can wake-up the human body and help human to face the busy day. It is designed to stimulate the human body's meridian system. The meridian system carries energy to all parts of the body, like the veins and arteries carry blood to all of the major organs and physiological systems of the body (Hayes, Sarah., Lampi, Marianne., & Leigh, G.K, 2002). Meridian stimulation is not just facilitated the distribution of energy throughout the body, but it also can stimulate part of brain. At least, two parts of brain that can stimulated. They are parietal lobe and middle frontal gyrus. Parietal lobe has a function to form the wisdom of thinking. On the other hand, middle frontal gyrus has a role in literacy and numeracy (Li, L., Liu, H., Li, Y. Z., Xu, J. Y., Shan, B. C., Gong, D., ... & Tang, X. W. 2008). Another study found that by giving stimulation to the meridian system, short term memory will be increased (Chandra, E. A., Sumekar, T. A., Muniroh, M., & Hardian, H. 2020). Similar thing also found on pervious study. Stimulation on the human meridian system can increase hippocampal long term potentiation activity. This is will play in helping learn and memory process (He, X., Yan, T., Chen, R., & Ran, D. 2012). Therefore, it is very clear that Wake-Up Gym that done by student can help them in learning process. Wake-Up Gym help improve student's brain work by increase the parts of brain that have a role in learning process.

At least 3 steps for Wake-Up Gym need to be done by student are as follows:

##### **1) Sweep And Bounce**

The way is with knees bent sweep with hands loosely down sides of body as you bounce rhythmically and gently up and down.



Figure 1. Sweep and Bounce

Benefit of this movement is relieving the important joints on hips, knees, ankles, shoulders, elbows and wrists. Improves the circulation of the blood and energy activation the function of the internal organs. The thing must be noted is to keep the soles of the feet on the floor, and look far away but concentrate your mind on the soles.

## 2) Twisting Arms

The way is with arms extended horizontally from the shoulders, twist from the shoulders so that the palms are facing opposite direction up and down. Head follows the palm that is twisted upward.



Figure 2. Twisting Arms

Benefit of this movement is making wrists and shoulders flexible and energetic, and decreases the fat in the muscles in arms.

## 3) Balancing The Plate

The way to do this movement with one of foot placed shoulder width in front of the other, with the same hand as the forward foot, balance an imaginary plate on hand. Opposite hand is placed on the hip of the leg that is back. Turn hand inward pointing toward body and make a tight circle and bring it around spiraling perfectly upward so that the spine straightens and hand in use is above head with palm facing upward. Then reverse.



Figure 3a. Balancing the Plate



Figure 4b. Balancing the Plate

The benefit of this movement is to relieve the joints, improves circulation, and makes the waist flexible. Stimulates autonomic nervous system.

## 2. Energy Focusing

This practice is beginning with learn to focus energy in the hands, and then moving the energy to other parts of the body. This practice helps them learn how to get more in touch with the energy of their body, learning to focus it and their attention in fun and interesting ways (Hayes, Sarah., Lampi, Marianne., & Leigh, G.K, 2002). This practice is strengthened by the other study, by train our mind to focus on the energy movement during meditation so it can increase brain activity pattern in prefrontal cortex (Manna, A., Raffone, A., Perrucci, M. G., Nardo, D., Ferretti, A., Tartaro, A., ... & Romani, G. L. 2010). As we know prefrontal cortex is the part of our brain that has a function in wisdom thinking.

There are several methods to do Energy Focusing, and this are several steps to do the easiest Energy Focusing as follows:

- 1) Sit comfortably (on their chairs, or floor) with backs straight, away from chair-back, palms together, and eyes closed.
- 2) Relax the body, holding no tension.
- 3) Breathe in deeply and exhale all of the tension through the mouth, making a slight hissing noise.
- 4) Focus on the palms, rubbing them together to make warm (it is a helpful method to feel energy for beginning sessions).
- 5) Pull the palms slowly apart, still focusing the concentration on feeling the energy (heat) sensation between the palms. (Keep hands no further apart than where we can feel the energy sensation between the palms and should to concentrate on the palms).
- 6) Push and pull the energy that we feel between the fingertips and palms by moving the hands closer together and further apart.
- 7) After a few minutes of feeling the sensation of the energy (heat) between the hands, do inhale and then exhale. Repeat 3 times. On the last breath to inhale all the way down to the abdomens and out the mouths making a hissing noise.

## 3. Brain Building

Brain Building is a direct stimulation of the brain. By giving stimulation to the brain, it can expand the use of the brain. This practice uses simple exercises, activities, and energy to stimulate the brain. It can help the brain to develop and clean energy of the brain. Soft, relaxing background music can be a useful part of the exercises. It can help us to be comfortable and to maintain the concentration on the exercise. The music should not be too loud, and repetition of the music can be more helpful so that we can focus on the energy rather than the tune or musical

Sounds (Hayes, Sarah., Lampi, Marianne., & Leigh, G.K, 2002). This is consistent with a training study that found 3 months of brain exercise training had improved prefrontal cortex of the brain which is the function is helping in wisdom thinking process (Voss, M. W., Nagamatsu, L. S., Liu-Ambrose, T., & Kramer, A. F., 2011)

There are several ways to do the easiest Brain Building as follows:

- 1) Sit comfortably (on their chairs or floor) with backs straight, away from their chair-back, palms resting on their knees, and eyes closed.
- 2) Relax the body, breathing deeply and slowly.

- 3) Focus on the palms, often repeating the word “palm” for emphasis. Then raise the palms 4 until
- 4) 5 inches from the knees and turn them so they are facing each other, slightly apart from each other (1-3 inches apart, not touching anywhere). Have focus on the energy between the palms, feeling any sensations they might have between the hands (heat, tingling, pulling or pushing like a magnet, etc.). continue to focus on the palms.
- 5) After focusing on the palms and any sensation can we feel between the hands. After that bring the hand palms facing on each side of the head, about 1-3 inches away.
- 6) Move the hands away from the head as we breathe in, and then bring the palms back closer to the head as we exhale (still without touching the head). Please keep moving the hands out slowly with each inhale and back in slowly with each exhale.
- 7) Continue to move the hands slowly outward and back inward, we should also move the hands
- 8) to different parts of the head so we eventually cover all parts of the side, top, front, and back of the brain.
- 9) After 2-3 minutes of cleaning, bring the palms back down to their knees. Inhale and then exhale. Repeat 3 times. On the last breath to inhale all the way down to the abdomen and out through their mouths making a “s” or hissing sound with their tongues near the roof of their mouth.

## Conclusion

The implementation of Independent Learning on the Independent Campus program has its own challenge during Covid-19 pandemic, because everything needs to be done by online. Prolonged online learning can increase boredom, stress, and anxiety on student. Brain Respiration can become as the one of method overcome the effect prolonged online learning. Besides it, Brain Respiration also has an important benefit to improve student brain work. Brain Respiration can help student face the prolonged online learning when we never know when the Covid-19 pandemic over.

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