INTUITION PROGRAM: A UNIQUE YOGA AND BREATHING PROGRAM THAT ENHANCES INTUITIVE ABILITY AND COGNITION IN CHILDREN

Divya Kanchibhotla, Shashank Kulkarni, Shweta Singh and Shilpa Dhakad

Executive Director, Sri Sri Institute for Advanced Research, Art of Living International Center, Bengaluru South – 560082

Objective: The present research examines the effect of a unique breathing and meditation technique called the Art of Living Intuition Program on children’s cognition and intuition. This program for children and adolescents from ages 5-18 years, consists of breathing (pranayama), meditation and relaxation techniques. The English language defines intuition as the ability to understand something instinctively, without the need for conscious reasoning. Intuition is the power or faculty of attaining direct knowledge or cognition without evident rational thought and inference. We all are born with a natural intuitive ability to perceive beyond our senses. However, intuitive ability is more visible in children whose minds are still fresh, less obsessive and more in tune with nature. Since this is something inherent and not evident in our daily lives, the question of how to develop intuition becomes relevant and interesting. The Art of Living Intuition Program is a revolutionary program for children and teenagers that develops the intuitive potential of children and young adults. To make these faculties blossom and get more established, the mind needs proper nurturing and nourishment which is done in the Intuition Program. One of the indicators of intuitive ability is the ability to perceive and read objects in front and perform tasks that require intense cognition with eyes closed.

Methodology: In the present study participants had to perform two types of tasks: a computer based task and a paper pencil task with their eyes closed and open. A pilot study was conducted to validate the effect of the Intuition Program. This was followed by the main study which was a pre-post longitudinal study on quantification of intuitive abilities as a result of the Intuition Program.

Result: Approximately 15% of children performed with greater than 80% accuracy in the computer test with eyes closed, and 30-35% of children performed with greater than 80% accuracy in paper test with eyes closed. Results revealed improvement in the performance from Day 0 to Day 2 and to Day 40 in terms of accuracy and response time. Response time of computer test decreased significantly as the time progressed - implying increase in cognition and intuitive abilities. The results clearly demonstrate that the Intuition Program allows children to develop intuitive abilities, as exhibited by performance on cognitive tasks with eyes closed.

INTRODUCTION

Intuition has become a popular topic in applied sciences (Lutfiyanto et al. 2014). Intuition means a sudden insight into the meaning, or importance or structure of a problem or situation without resorting to logical reasoning (Güven, 2010). Intuition is defined as the ability to reach knowledge directly and not through observation or inference (Yıldırım, 1996). Intuition can be viewed as reflective cognitive processing on the fringe of human consciousness (Mangan, 1993, 2001, 2015; Norman, 2002, 2016; Price, 2002; Norman et al., 2006, 2010).

*Corresponding author: Divya Kanchibhotla
Executive Director, Sri Sri Institute for Advanced Research, Art of Living International Center, Bengaluru South – 560082

Intuitive processing appears in the form of spontaneous and instantaneous ideas or hunches that can neither be intentionally controlled, nor evoked or ignored (e.g., Topolinski and Strack, 2008). Thus, intuitive processing happens without attentional effort and is fast and effortless (e.g., Hogarth, 2010). For most of us, intuition still remains as an esoteric concept which is difficult to trust. However, this ability is more visible in children whose minds are still fresh, less obsessive and more in tune with nature. Deep and enigmatic faculties are present in latent form in every child. Developmental psychologist Piaget (1936) has referred to the ages four to seven years as the intuitive period for children.

In today’s modern society, childhood is no longer an idyllic time. Children and adolescents experience great stress and
disease from early on. According to a World Health Organisation (WHO) report, India is home to 57 million people who are depressed. According to the latest Times of India survey, 40% youth of Mumbai are depressed and only 13% parents are aware about their child’s mental health. These days, often, we come across articles in newspapers and journals commenting on the alarming increase of depression, stress and anxiety in children and teenagers. Several factors like change in lifestyle, unhealthy eating habits, increasing usage of gadgets etc. are responsible for this. Thus, there is a need to focus on the overall wellbeing of children and teenagers including their cognitive, emotional, social and physical wellbeing.

Yoga based mind-body interventions are gaining popularity in addressing the issue of stress and debilitating mental health amongst children and adolescents. Studies have shown positive effect of yoga and meditation practice on physical fitness, mood, anxiety level, cognitive functioning (Abadi & Venkatesan, 2008; Subrahmanya & Telles,2009), elevated sense of well-being (Semple et al. 2009; Semple et al. 2005), greater ability to focus (Jensen & Kenny, 2004; Napoli et al. 2005; Peck et al. 2005), increased relaxation (Jellesma & Cornelis, 2011), and enhanced self-regulation (Flook et al., 2010). Studies have reported improved attention in children (Peck et al. 2005), concentration in adolescents (Sharma & Kaut, 2009), energy and well-being (Dolde, 2011) after practicing yoga. According to Ali & Brar (2002), children who practice yoga regularly are healthy, good tempered, disciplined, have good memory, concentration and stamina. According to Uthaman & Uthaman (2017), students who practice yoga and meditation daily scored higher in cognitive functions than the matched group of students who did not practice yoga or meditation. Studies have also shown that children practicing yoga and meditation had better mental health and psychological empowerment than non-practitioners. Mendelson et al. (2010) reported decreases in involuntary stress responses, including lower scores on the subscales of rumination, intrusive thoughts, and emotional arousal in students practicing yoga. Noggle and Khalha (2010) found that rural high school students randomized to a semester of yoga showed significant mental health benefits compared to students randomized to their school’s regular physical education curriculum. Yoga participants showed improvement on measures such as tension and anxiety, negative affect, anger control, fatigue, confusion, and resilience.

Broderick and Metz (2009) evaluated the “Learning to Breathe” program in high school students. Participants showed significant decreases in negative affect and increases in self-reported calm, relaxation, and self-acceptance. Schonert-Reichl & Lawlor (2010) reported improvements in self-reported optimism, positive affect, and externalizing behavior in the participants of mindfulness program. There was evidence of benefits in self-concept for preadolescent students. Teacher ratings also indicated improvements in student attention and social-emotional competence. Lazar et al (2005) reported the changes in brain’s physical structure in the participants who practiced meditation. Attention and sensory processing areas in the brain were thicker in meditation practitioners.

Various studies cited above, which prove the effectiveness of Yoga, Pranayama, and Meditation on children’s wellbeing and cognition. The Art of Living Intuition Program is a program based on Yogic Breathing and Meditation practices for children and teenagers (ages 5-18) which develops their potential, including their intuitive ability. The program nurtures and nourishes the mind away from stressful stimuli, allowing the latent intuitive tendencies to develop, blossom and become established. Enhanced intuition can help children take better decisions, be more confident and have greater resilience & enhance creativity. To make these faculties blossom and get more established, the mind needs appropriate nurturing and nourishment as provided in the Intuition Program. Over 50,000 children have experienced these techniques globally and the benefits and abilities are found to be similar. In recent time there has been considerable interest in figuring out the effect of yoga, meditation and relaxation techniques in adults, however, studies on the efficacy of these practices is still in infancy in case of children. Therefore, the present study is an attempt to explore the effect of Art of Living Intuition Program in children.

The Intuition Program is a 5-hour workshop spread over 2 days conducted by Art of Living foundation: 2 sessions of 2.5 hours each. It is an interactive, fun program which uses games, dance, ancient techniques of Pranayama (breathing techniques), Super Brain Yoga, Meditation and Yoga Nidra (relaxation). Children are engaged in interactive fun games that involve both physical activity and relaxation techniques. Super Brain Yoga is an ancient technique that combines acupressure (light tugging of the ear lobes) with criss crossed arms and squats. Pranayama is a methodical breathing pattern that channels energy to different parts of the body. The children are taught two simple breathing techniques. Yoga Nidra, also called Yogic Sleep, is a meditation technique and one of the easiest yoga practices to develop and maintain. It is done lying down and uses systematic muscle relaxation targeting various parts of the body. Following the above three interventions, children are asked to dance with their eyes closed. Participants are required to practice the techniques taught in the two-day program at home for about 10 minutes twice daily. The specific combination of these techniques impacts a child /adolescent’s body mind complex in a unique manner allowing them to learn to methodically access and use their intuitive abilities. The benefits are enhanced cognition, memory and creativity. Hence, this program can also help children in overcoming depression, stress, anxiety and can improve their cognition and wellbeing.

**METHODOLOGY**

**Task**

**Computer Based Task:** The task was a MATLAB (Psychtoolbox) based standard visual task which consisted of two types of task (1) Visual Categorization task consisting 90 trials and (2) Visual Search task of 90 trials. In visual categorization trials, participant had to indicate if the object was an animal or not. In visual search trials participant had to find the odd-one-out in a display of otherwise identical items. In both the tasks fixed number of images appeared randomly on the computer screen and the subject had to respond by pressing two keys “Z” and “M” of the keyboard, first one using the right hand and other using the left hand. The response measures were accuracy, reaction time and the hand used by the participant. The participants had to do these tasks with eyes open and eyes closed.
**RESULTS**

The study measured the accuracy of responses on the tests. The accuracy for paper based tests was calculated manually by recording the correct responses. The accuracy for computer based tests was calculated through the software.

**Pilot Study**

An average of 33% of study population scored above 80% on Paper tests while an average of 10% scored above 80% on Computer tests. One of the reasons for low performance on computer test could be children’s unfamiliarity in reading blindfold on electronic devices. Once we segregated the study population based on comfort with reading blindfold on electronic devices, the percentage of population scoring above 80% increased significantly.

The results were independent of age and gender and frequency of practice. Since many children had done Intuition Program a few months ago, the frequency of practice assessment was not 100% correct. The limitation of this study was that we did not have prior information if any of these children could read blindfolded before the Intuition Program. This gave us a strong impetus to continue with a larger study on the Intuition Program with measurements and assessment pre and post the program. Based on the results of pilot study, accuracy above 80% with eyes closed was taken as an indication of intuitive abilities.

**Main Study**

**Computer Task 1**

<table>
<thead>
<tr>
<th>Study</th>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accuracy</strong></td>
<td><strong>df</strong></td>
</tr>
<tr>
<td><strong>Open Eye</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Response Time</strong></td>
<td>166</td>
</tr>
<tr>
<td><strong>Closed Eye</strong></td>
<td>171</td>
</tr>
<tr>
<td><strong>Response Time</strong></td>
<td>149</td>
</tr>
</tbody>
</table>

**Accuracy**

Table 1 results reveal a significant decline in the performance with open eyes on accuracy measure from day 0 to day 2 and to day 40, which shows decline in the performance. With closed eyes there was a non significant increase in the accuracy measure from day 0 to day 2 and from day 2 to day 40 and a significant increase in the accuracy, from day 0 to day 40 can also be seen in the results. This increment in accuracy suggests improvement in the performance by practicing techniques taught in the Intuition Program.

**Response Time**

Table 1 results reveal a significant decline in the performance with open eyes on response time measure from day 0 to day 2 and from day 0 to day 40, which indicates increased ease with the test. However, with eyes closed, mean response time was almost similar on day 0 and day 2. Results show a significant decline in response time from day 0 to day 40 with eyes closed. This decrement in the response suggests improvement in performance by practicing techniques taught in the Intuition Program. It should be noted that none of these children exhibited intuitive abilities on day 0 as evident by closed eyes computer task, and the high % of children with above 80% accuracy with open eyes shows that the test itself was not hard to do.

**Computer Task**

<table>
<thead>
<tr>
<th>Study</th>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accuracy</strong></td>
<td><strong>df</strong></td>
</tr>
<tr>
<td><strong>Open Eye</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Response Time</strong></td>
<td>154</td>
</tr>
<tr>
<td><strong>Response Time</strong></td>
<td>155</td>
</tr>
<tr>
<td><strong>Closed Eye</strong></td>
<td>159</td>
</tr>
</tbody>
</table>

**95% Confidence Interval**

- **p > 0.01; **p > 0.001
Table 2 results reveal almost similar performance with open eyes on accuracy measure from day 0 to day 2 and to day 40, which indicates that the performance of the participants on accuracy measure was almost similar in pre and post conditions. However, with eyes closed, there was significant increase in the accuracy measure from day 0 to day 2 and from day 0 to day 40. However, a non significant increase in the accuracy from day 2 to day 40 can also be seen in the results. That indicates no change in the accuracy measure from day 2 to day 40, but significant increment in the accuracy from day 0 to day 40 suggests improvement in the performance by practicing techniques taught in the Intuition Program.

Response Time
Table 2 results reveal significant decline in the performance with open eyes on response time measure from day 0 to day 2 and from day 0 to day 40, which shows improvement in the performance. However, with eyes closed, mean response time declined from day 0 to day 2 and from day 0 to day 40. However, this decline is not significant. Results further show a significant decline in response time from day 2 to day 40 with closed eyes. This decrement in the response time may suggest that improvement in the performance happened by practicing techniques taught in the Intuition Program.

Paper Based Task

| Table 3 |
|------------------------|----------------|----------------|
|                         | Closed Eye     |                |
|                         | df             | t value        |
|                         | Day 2 - Day 40 |                |
| Alphabets               | 83             | 0.98***        |
| Numbers                 | 98             | 0.61           |
| Shapes                  | 102            | 0.84           |
| Colors                  | 103            | 0.86           |

*p<0.05, **p<0.01, ***p<0.001

Accuracy
Accuracy was the only measure taken for paper based task. Table 3 results reveal significant increase in accuracy measure with eyes closed from day 2 to day 40, which indicates that the performance of the participants on accuracy measure improved from pre to post condition for all four types of cards. Significant increment in the accuracy from day 2 to day 40 suggests improvement in the performance by practicing techniques taught in the Intuition Program.

DISCUSSION
Since we are taking accuracy above 80% with eyes closed as an indication of intuitive abilities, as they are well above the probability of chance, therefore the major response measure in the present study was accuracy in the test performance. The results of the present research clearly demonstrate that the Intuition Program allows children to develop intuitive abilities. One of the indicators of intuitive ability is the ability to perceive and read objects in front and perform tasks that require intense cognition with eyes closed. This is just one ability to measure intuition. The Program has also resulted in positive changes in children’s behavior which we have not discussed here.

Results of the present study show that at least 10% of the population developed strong intuitive ability, as demonstrated by the ability to perform cognitive tasks on computer with great accuracy with closed eyes. Significant increase in accuracy with eyes closed test for both the computer based task and paper based task, over the duration of the study, implies that intuitive powers emerged in children. The response time also reduced significantly for both the tasks. Even with eyes closed, the time taken for children to respond was lesser than eyes open. Shorter response time indicates that the mental processes increased in children and information processing became faster, implying improved cognition. The chances of learning effect in this study are nil as the test used in the study is highly randomized. The results of the present study are in alignment with the previous studies which demonstrated positive effects of yoga and meditation on cognition and wellbeing of children (Ali & Brar, 2002; Peck et al. 2005; Sharma & Kaut, 2009; Dolde, 2011; Uthaman & Uthaman, 2017). Studies have also shown positive effect of yoga and meditation practice on anxiety level (Abadi & Venkatesan, 2008; Berger & Owen 1992; Subrahmany & Telles,2009). Previous studies have suggested that meditation and yoga are associated with beneficial outcomes for children and youth (Greenberg & Harris, 2011).

CONCLUSION
Intuition is the ability of the mind to perceive beyond the five senses and delve into the sixth sense. Intuition is the right thought, as well as the right action, at the right time. Having a strong and well-developed intuition helps children take good decisions and communicate better. Intuition leads to discovery and innovation. Since this is something inherent and not evident in our daily lives, the question of how to develop intuition becomes relevant and interesting. The Intuition Program wakes up the latent intuitive potential through specific Art of Living techniques which have an impact on brain activation through meditation and relaxation. Through these techniques children can learn to methodically access and use their intuitive abilities. One of the ways the intuitive capacity is exhibited is through an ability to perceive, understand and replicate an object without seeing. Reading with eyes closed is just one measure of intuitive ability. These children are able to perform activities such as reading, coloring, finding hidden objects, walking to a specified location etc. with eyes closed. They even develop foresight, improve their communication skills and overcome their inner fears. In addition, parents and teachers have reported significant positive behavioral changes in children after undergoing the Art of Living Intuition Program. In the present study 14% - 30% children who were randomly selected, exhibited strong intuitive abilities. None of them possessed these intuitive abilities before the program. The study does not imply that other children who undergo the program are not intuitive. The measure of intuitive ability (80% accuracy) in the study is quite stringent. Inspite of that, we see a large number of children who demonstrate unequivocally the skill to use to their intuitive powers to perform difficult cognitive tasks and read without using their visual senses.

Limitations
Firstly, there is no control group in the study, so the study cannot clearly explore the effect of the Intuition Program. Second, during the process of data collection there were drop outs, which may have affected the results of this study. Third, there is scarcity of available resources on intuition and the available ones might not be accessible.
References

16. Mangan, B. 2015. The uncanny valley as fringe experience. g. 16(2):193-199. doi:10.1075/iss.16.2.05man
32. The Times of India. 2018. 40% of Mumbai’s youth are depressed, just 13% parents aware of it: Survey - Times of India. https://timesofindia.indiatimes.com/city/mumbai/40-of-
Intuition Program: A Unique Yoga and Breathing Program That Enhances Intuitive Ability and Cognition in Children


How to cite this article:
DOI: http://dx.doi.org/10.24327/ijcar.2019.18538.3545

*******