



# Effect of Trataka Yoga on Self efficacy of Secondary School Students

Dhananjay Debnath<sup>1</sup>, Dr. Dipti Saikia<sup>2</sup>, Dr. Sangita Borah<sup>3</sup>

<sup>1</sup>Research Scholar, Madhabdev University

<sup>2</sup>Associate Professor, Madhabdev University

<sup>3</sup>Post Graduate Teacher, Nilbagan Model Higher Secondary School

<sup>3</sup>Email: [sangita.borah84@gmail.com](mailto:sangita.borah84@gmail.com)

## Abstract

The true experimental research aimed to study the effect of Trataka on self efficacy of secondary school students of Juria Higher Secondary School, Nagaon, Assam. The samples considered of 62 students from class XI<sup>th</sup> and were assigned into experimental group and Control group by using simple random sampling method. There were 31 students in experimental group (31-Experimental group and 31-Control group). Trataka was practiced by experimental groups only for 5 weeks and Control group did not practice any experiment. The findings of the study found that there is no significant difference between pre-test score of Control group and Experimental group before practice Trataka and there was no significant difference between pre-test and post-test score of Control group. The findings of the study also found that there was significant difference between post-test score of Control group and Experimental group before practice Trataka and there was a significant difference between pre-test and post-test score of experimental group.

**Keywords:** Trataka yoga, experimental groups, Control group.

## 1. Introduction

Yoga is the well known science of self-development originated and practiced from ancient India. It is a traditional method of mental, physical, emotional and spiritual discipline which is used from thousands of years for making happy, healthy and meaningful life. It was practiced by Yoga practitioners or Yogis from ancient times long before humans learned to write. Over the course of millennia, yoga transmitted the discipline to their students and numerous schools of yoga. Many research proved that it helps in developing all the disciplines. The word Yoga has its root from the Sanskrit term Yuj, which refers to the act of yoke, join, unite, combine or integrate. In the traditional definition it is joining of jivanta with parmatma. It means the individual self with the supreme self. In the broader sense, to create a happy, balanced and productive existence, Yoga (yuj) signifies the integration or joining of three levels of the individual- body, mind, and

soul; body with mind and the mind with soul. They believe that the ultimate aim of Yoga is to achieving Kaivalya which means emancipation or ultimate freedom. Bhagwat Gita has also elaborated about the significance of Yoga as a powerful tool in practical life situation where through yoga people can perform their duties efficiently. The outstanding scholar of Yoga science Sri Aurobinda says that “Yoga helps us to become conscious of the great complexity of our nature and the different forces that make it”.

It is said that Maharishi Patanjali is the founder of "modern yoga." According to Maharshi Patanjali's classical period, yoga entails mastering mental transformations. Ashtanga yoga is described by Patanjali in the Yoga Sutras as "Yogah Chitta Vritti Nirodhah." Since Nirodha means control, Vritti means how the mind functions, and Chitt means mind, yoga is about controlling how the mind functions. Our minds contain our thoughts, feelings, emotions, and conditionings. It's really hard to regulate. Yoga is a method for managing all of these mental processes.

### 1.1 Meaning of Trataka

A particular kind of kriya called Trataka aims to improve mental and physical dedication, foster attention, and support good vision. Without blinking the eye, it is accomplished by freezing the eyesight on a certain object. You can choose between two different kinds of Tratak Kriyas: Jyoti and Jatra. When executing it, keep your eyes relaxed at all times. Tear gland secretion would result from this, further purifying the visual system (Rishikesh, 2017).

The Hatha Yoga Pradipika, the traditional book on Hatha Yoga practices, lists six cleansing methods, including Trataka. "Looking intently with an unwavering gaze at a small point until the eyes begin to tear, is called Trataka by the great teachers," according to the sholoka of Hatha Yoga Pradipika. Trataka, according to Swami Muktibodhananda in the Hatha Yoga Pradipika, simply means to look steadily at something.

Trataka is a meditation technique by closing eyes and seeing the object in mind's eye after alternating staring at it or at a location without blinking. It's a great way to practice concentration. The cleansing procedures of hatha yoga have been categorized into six sets of purification techniques called shatkarmas, where "shat" stands for six and "karma" for action. The ancient writings of the Gherand Samhita and Hatha Yoga Pradipika both mention them. Trataka causes one to focus entirely on one thing, form, or idea at the expense of all others. Though trataka is considered as cleansing technique and the ultimate stage of trataka leads to contemplative mental state. Trataka practitioners employ a variety of objects for practice, but staring at a candle flame is the most widely used technique.

### 1.2 Forms of Trataka

- **Trataka on a flame:** Here, the practitioner focuses on the flame of a candle or oil lamp. (called Diya Trataka in Hindi).
- **Trataka on a spot on a board or wall:** A practitioner can enhance their ability to focus by concentrating on a black area that has been drawn on the board or wall. (Bindu Trataka in Hindi).
- **Mirror Trataka:** Here, the practitioner examines his image in the mirror. (also known as Darpan Trataka in Hindi).

- **Trataka on an image:** This is accomplished by focusing on a specific image, which may be a picture associated with your religion or faith (Nair).

For getting such power and also for improving eyesight, Trataka is the best practice in the field of yoga. There are many types of Trataka like Bindu Tratak, Shakti Chakra Tratak, Agnishikha Tratak (Candlelight Tratak), Chandra Tratak (Moon Tratak), Surya Tratak (Sun Tratak), AgniTratak (Fire Tratak). Here, the investigator used *Bindu Tratak* for this study.

It's important to remember that practicing Trataka requires careful attention and appropriate supervision. People with specific visual disorders or psychological problems might not be able to use it. Listening to the body and practicing with awareness and mindfulness are crucial, just like in any other yoga practice. It is advised to speak with a certified yoga instructor or other healthcare provider before beginning any new practice, particularly if you have any underlying medical issues.

## 2. Review of related literature

**Patel, A. T. (2019)** did his study on "Effect of Yoga exercise on memory, Stress and self confidence of secondary school students" and findings of the study reveals that there is significant difference seen between scores of the pre-test and post-test of the students of experimental group at 0.05 and 0.01 levels. Optimistic effect of yoga exercise found on self confidence of experimental group students. It is also concluded that the equal effect of Yoga Exercise seen on sex.

A research was conducted by **Dev, K. (2020)**. The aim of the research is to investigate whether "Yogic intervention has impact on self-confidence, emotional intelligence and adjustment of adolescents". The study was conducted on a sample of 200 adolescents in the age range of 13 to 18 years. The participants were divided into experimental and control groups. Experimental group received a yogic intervention. The findings suggest that the yogic intervention was successful in improving the self-confidence, emotional intelligence, and adjustment of the adolescents. Boys have greater self-confidence and girls have greater emotional intelligence and adjustment even after the yogic intervention. All the three variables were positively correlated to each other.

**Bhadra, C. (2020)** carried out a study on the "Effect of Trataka on Heart and Brain Functions." The study's aim was to determine how Trataka affected graduate-level students' heart and brain functioning as well as their neuropsychological (memory and attention) abilities. Resting heart rate, beta waves, verbal memory, visual memory, working memory, composite memory, complex attention, and sustained attention were all found to have greatly improved after 12 weeks of Trataka practice.

A study on the "Effect of Bhramari Pranayam and Trataka Kriya on Mental Health and Sleep Quality of the People with Insomnia" was carried out by **Singh, Y.K. (2023)**. 75 people in the age range of 35 to 55 participated in an experimental study. The purpose of the study was to determine how bhramari pranayama and trataka kriya affected the severity, caliber, and mental health of insomniacs. The study's conclusions showed that yoga practices (bhramari and trataka) have a comparable effect on improving the quality of sleep for people with insomnia. Additionally, it was shown that the bhramari pranayama and training had a

considerable positive impact on the participants' mental health. Both the yogic practices of bhramari and trataka are beneficial in enhancing their mental well-being.

**Panwar, S. K. (2023).** Carried out a study on “Effect of Yogic Tratak and Jyoti Avataram Dhayan on the Mental Health of Shooters” and the result showed that Yogic Trataka and Jyoti Avataram Dhayan (Light Meditation) play a significant role in stabilizing mental health in competition. After practice they show significant changes in mental health.

**Panda, S.K., and Chundawat, A. (2023).** Carried out a study on Tratak and its benefits. The study found that quality of life can be improved by yoga and meditation, which are effective methods for resolving psychological and physical issues and fostering mental clarity, emotional stability, and general well-being, respectively.

### 3. Significance of the Study

The yogic technique of trataka involves ‘a one-pointed focus’ on any object of interest. Some of the common objects of focus are a black dot, Om symbol, sun, moon, nose tip, eyebrow center, yantras, colors, void, and so on. This study has included Bindu trataka only as a therapy for secondary school students to see the effect of trataka on their self-efficacy. The applicability of trataka for therapeutic purposes is very versatile. By focusing the attention on the mid-brain, this practice sharpens the cognitive aspects of memory, concentration, problem-solving, reasoning, and decision-making (**Shankari, S. V. 2021**). So, this practice definitely beneficial for student’s self-efficacy, academic performance, academic stress, examination anxiety, academic anxiety etc. There are a few studies that have examined the benefits of Trataka in relation to other health problems, this study aims to find the benefits of Trataka along with other yogic techniques specifically towards secondary school students Self efficacy. These days, schools are becoming more interested in including yoga programs for the students' physical and mental well-being. It is believed that this physical exercise helps pupils' neurological systems to be more balanced for improved performance. (D. Raghav, 2018) Long-term psychosocial stress causes schoolchildren to behave negatively, according to studies. These typically occur when they are unable to handle the rigorous educational system and peer competitiveness. Since today's educational process requires children to be active in all aspects, it is crucial that students meditate in order to maintain their calm. Present era is very chaotic and all are busy in their own life. Because of globalization Competition grows day by day and students have to work hard to achieve their goal. To achieve the goal they have to be confident on themselves, planning more and involve in every academic work to break barriers for to achieve good educational outcome. But in this process student sometimes feel more stress because of various factors like teachers lack of support from teachers, parents, friends, and overload of curriculum, syllabus, and excessive homework etc. here, Trataka may work as a medicine to overcome from this problem.

At present all people are very concern about their health and to maintain their physical and mental health they practice yoga. In this context regular practice of Yoga Trataka may play an important role in increase Self-Efficacy. Here in this context this study definitely helps those secondary school students by practicing Trataka.

## 4. Statement of the problem

The paper entitled as- *Effect of Trataka Yoga on Self Efficacy of Secondary School Students*

## 5. Operational Definition and Key Terms

**Effect:** By the term effect the researcher means the result or outcome of Tartaka practices of total 20 minutes (two times in a day).

**Self-Efficacy:** Here researcher measured self-efficacy of sample by pre-test and post-test scores by using self efficacy tool developed and standardized by **Dr. Arun Kumar Singh and Dr. Shruti Narain (2014)**

**Secondary school students:** It refers to the group of the students who are studying in class XI<sup>th</sup> of Juria Higher Secondary School.

## 6. Objective

1. To see the effect of Tartaka Yoga on Self –Efficacy of Secondary School Students

## 7. Hypotheses of the study

**H<sub>01</sub>** There is no significant difference between pre-test and post-test scores of Self –Efficacy of Control Group without performing Tartaka Yoga practices among Secondary School Students.

**H<sub>02</sub>** There is no significant difference between Pre-test and post-test scores of Self –Efficacy of Experimental Group after performing Tartaka Yoga practices among Secondary School Students.

**H<sub>03</sub>** There is no significant difference between pre-test scores of Self –Efficacy of Experimental Group and Control Group before performing Tartaka Yoga practices among Secondary School Students.

**H<sub>04</sub>** There is no significant difference between Post-test scores of Self –Efficacy of Experimental Group and Control Group after performing Tartaka Yoga practices among Secondary School Students.

## 8. Delimitations of the study

- The study is delimited to the Effect of Trataka Yoga on Self –Efficacy of Secondary School Students
- In this study Trataka Yoga is independent variables while self–efficacy dependent variables.
- The study is delimited to the class XI<sup>th</sup> students only.
- The study is delimited to the 62 students (31 boys and 31 girls) only.
- The study is delimited to only one Government Secondary School named, “Juria Higher Secondary School” of Nagaon district, Assam, for both the Experimental Group and Control group.

## 9. Methodology

The methodology for this study is described here under the following headings:-

### 9.1 Research design

This study will employ “**Two group Pre-test Post-test Design only**” under **True Experimental Research** (two equivalent matched group by class).

### 9.2 Population

The population of the study is all XI<sup>th</sup> class students of “Juria Higher Secondary School” Nagaon district, Assam.

### 9.3 Sampling design

Researcher had selected two equivalent matched groups i.e. Experimental and Control group using **Simple Random Sampling Technique** as given below for the purpose of this study.

Here,

**Table: 1**

Group	Class	Experimental group	Control group	Total Sample
Experimental Group	XI <sup>th</sup> Class students	31	31	62
Control Group	XI <sup>th</sup> Class students	31	31	

**Treatment was given to Experimental Group only.**

### 9.4 Sample and Sampling technique

For this study 62 Secondary School students of class XI<sup>th</sup> was selected through **Simple random Sampling Technique**.

### 9.5 Variable of the study

As the topic is study on “Effect of Trataka Yoga on Self-Efficacy of Secondary School Students of Nagaon district of Assam” the following variables are decided for the study;

Independent variable : Trataka Yoga.

Dependent variable : Self-Efficacy

### 9.6 Tools for data collection

The investigator was adopted a systematic procedure for collecting essential data, required for realizing the objective. For this study the major tool was Self-Efficacy tool constructed and standardized by **Dr. Arun Kumar Singh and Dr. Shruti Narain (2014)** use for data collection.

### 9.7 Tools for treatment

The tool for treatment includes Bindu-Trataka Yoga session for 5-10 minutes after consulting from Yoga expert. Treatment was given to Experimental Group only and Control Group was not received any treatment like Trataka Yoga.

## 10. Procedure of the study

### 10.1 Bindu Tratak – Concentrated Gazing on Dot

The bindu, a dot, usually red or black should be placed on the wall at eye level and one should sit in front of it, at about an arms distance. Sit comfortably with the spine erect and eyes relaxed. First close the eyes and relax. Keep the body steady and stable throughout the practice. Open the eyes and gaze steadily at the point. Try not to blink or move the eyeballs, do not strain the eyes. Try to focus only on the point. When the eyes start to get tired or begin to water gently close them and gaze at the after image of the point in *chidakash*. When the image disappears opens the eyes and repeats the process. Continue as many times as desired. After completing palm the eyes and if needed splash some cold water into the eyes.

- A total no. of 32 students of XI<sup>th</sup> class was selected.
- Administration of pre-test: The investigator was administered above mentioned scales for pre-tests.
- Treatment: As part of the treatment Trataka Yoga practice was conducted periodically. Trataka Yoga practice was carried out in a group situation. A total no. of 30 sessions Trataka Yoga practice was given 2 times in a day, morning and evening and every session consist of 5-10 minutes total(20 minutes in a day).

**10.2 Administration of Post-Test:** The investigator was administrated same modified and adapted above mentioned scales for post-test after 5-week practice of Trataka Yoga.

## 11. Analysis and interpretation of data

**Objective:** To study the effect of Trataka on self-efficacy of class XI<sup>th</sup> students of Assam.

**H<sub>01</sub>** There is no significant difference between pre-test and post-test scores of Self –Efficacy of Control Group without performing Tartaka Yoga practices among Secondary School Students.

### Hypotheses Testing Reports

**Table 2: Control Group Pre-test and Post-test Score**

Group	Test	Mean	SD	Df	t-value
<b>Control Group</b>	Pre-Test	74.50	8.53	31	4.980
	Post-Test	74	8.61		



**Figure: 1**

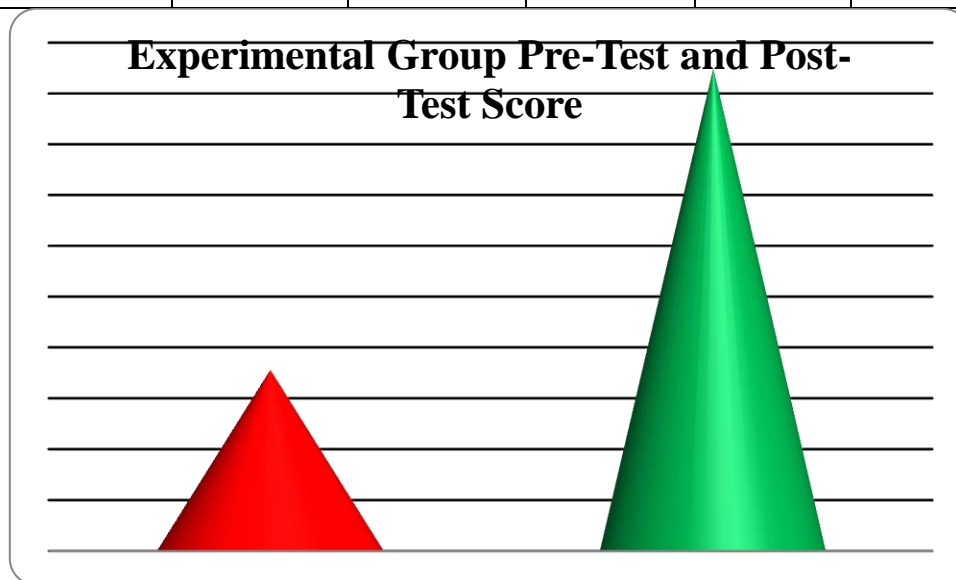
### Interpretation

From the table-1.1 result of the paired sample t-test showed that before giving Trataka practice to XI<sup>th</sup> 31 students, Control group self-efficacy mean score was 74.50 with SD and 8.53 and Control group Post-test mean score 74 with 8.61 SD. Here, it is concluded that there was significant difference between control groups pre-test and post test scores before and after 5-weeks gap. Again, the calculated t-value 4.980 is greater than table t-value 2.04. Hence, the null hypothesis is **rejected**. (4.980>2.04).

**H<sub>02</sub> There is no significant difference between pre-test and post-test scores of Self –Efficacy of Experimental Group after performing Tartaka Yoga practices among Secondary School Students.**

**Table 3: Experimental Group Pre-test and Post-test Scores**

Group	Test	Mean	SD	Df	t-value
<b>Experimental Group</b>	Pre-Test	74.78	8.43	31	7.560
	Post-Test	77.75	9.55		



**Figure: 2**

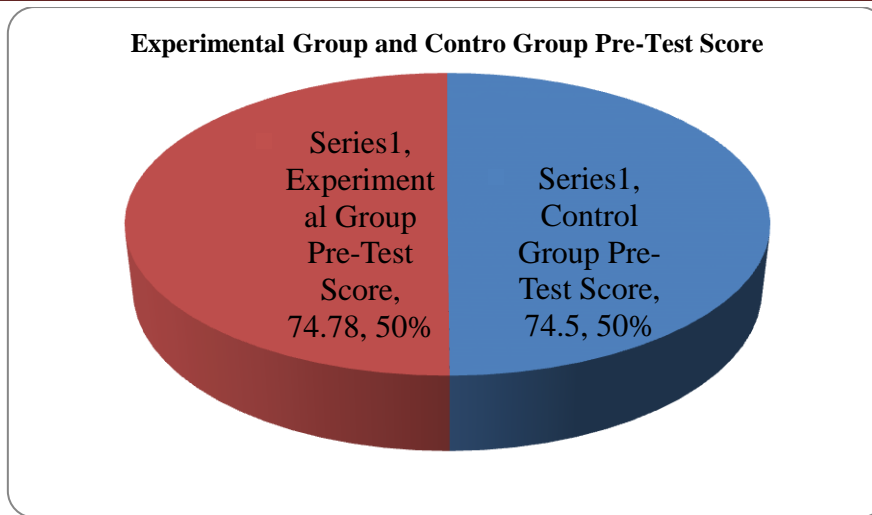
From the **table-3** result of the paired sample t-test showed that before giving Trataka practice to XI<sup>th</sup> 31 students, Experimental group Pre-test self-efficacy mean score was 74.78 with SD and 8.43 and Experimental group Post-test self-efficacy mean score 77.75 with 9.55 SD. Here, it is concluded that there was significant difference between Experimental groups pre-test and post test scores before and after 5-weeks gap. Again, the calculated t-value 7.560 is greater than table t-value 2.04. Hence, the null hypothesis is **rejected** ( $7.560 > 2.04$ ). In other words: 5-week Trataka practice found to be more effective in improves the Self-efficacy of secondary school students.

**H<sub>03</sub> There is no significant difference between Pre-test scores of Self –Efficacy of Experimental Group and Control Group before performing Tartaka Yoga practices among Secondary School Students.**

**Table 4: Control Group and Experimental Group Pre-test Scores**

Group	Test	Mean	SD	df	t-value
<b>Control Group</b>	Pre-Test	74.50	8.53	31	.586
<b>Experimental Group</b>	Pre-Test	74.78	8.43		





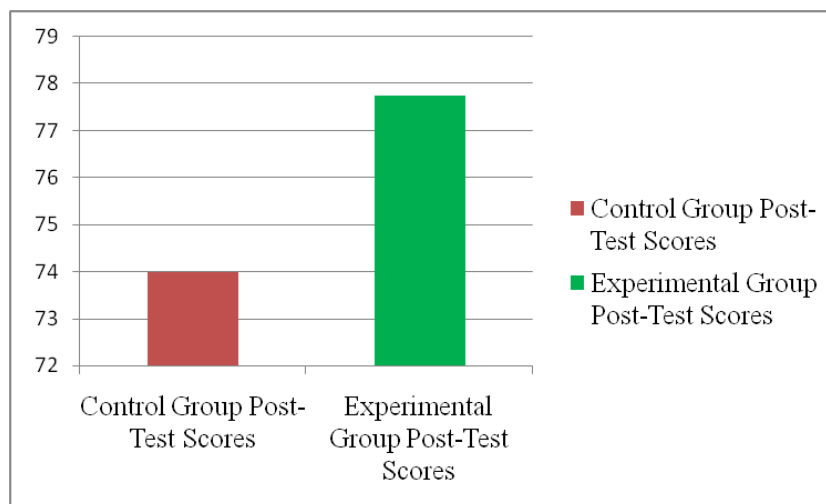
**Figure: 3**

From the **table-4** result of the paired sample t-test showed that before giving Trataka practice to XI<sup>th</sup> 31 students, Control group Pre-test self-efficacy mean score was 74.50 with SD and 8.53 and Experimental group Pre-test self-efficacy mean score 74.78 with 8.43 SD. Here, it is concluded that there was slight significant difference between Control and Experimental groups post test scores after practice of 5-weeks Trataka. Again, the calculated t-value .586 is smaller than table t-value 2.04. Hence, the null hypothesis is **accepted** (.586<2.04). In other words: Before giving 5-week Trataka practice to secondary school students there was no difference between Self-efficacy mean score of Control group and Experimental group.

**H<sub>03</sub> There is no significant difference between Post-test scores of Self –Efficacy of Experimental Group and Control Group before performing Tartaka Yoga practices among Secondary School Students.**

**Table 5: Control Group and Experimental Group Post-test Scores**

Group	Test	Mean	SD	df	t-value
<b>Control Group</b>	Post-Test	74	8.61	31	7.624
<b>Experimental Group</b>	Post-Test	77.75	9.55		



**Figure: 4**

From the **table-5** result of the paired sample t-test showed that before giving Trataka practice to XI<sup>th</sup> 31 students, Control group Post-test self-efficacy mean score was 74 with SD and 8.61 and Experimental group Post-test self-efficacy mean score 77.75 with 9.55 SD. Here, it is concluded that there was significant difference between Control and Experimental groups post test scores after practice of 5-weeks Trataka. Again, the calculated t-value 7.624 is greater than table t-value 2.04. Hence, the null hypothesis is **rejected** (7.624 >2.04). In other words: 5-week Trataka practice found to be more effective in improves the Self-efficacy of Experimental group secondary school students.

The data collected from sample will be analyzed by applying appropriate statistical technique such as t-test, Pearson Coefficient Correlation and using SPSS student's version.

## 12. Major Findings of the study

The major findings of the study are-

1. There was no significant difference between pre-test score of Control group and Experimental group before practice Trataka.
2. There was significant difference between post-test score of Control group and Experimental group before practice Trataka.
3. There was no significant difference between pre-test and post-test score of Control group.
4. There was a significant difference between pre-test and post-test score of experimental group.

## References

- [1]. Bhadra, C. (2020). *Effect of trataka on heart and brain functions (Doctoral thesis, Visva BharaUnivesity)*. <http://hdl.handle.net/10603/313375>
- [2]. Datta, R. (2022). *Effect of trataka and guided music relaxation technique on shooting performance (Doctoral thesis, Amity University, Uttarpradesh)*. <http://hdl.handle.net/10603/435474>
- [3]. Dev, K. (2020). *A study on the effect of yogic intervention on self confidence, emotional intelligence and adjustment of adolescents (Doctoral thesis, Sri Jagdishprasad Jhabarmal Tibarewala University)*. <http://hdl.handle.net/10603/477862>
- [4]. Harshita, A. (2022). *Efficacy of Laughter yoga on resilience, emotions and perceived stress among disadvantaged females (Doctoral thesis, Lovely Professional University)*. <http://hdl.handle.net/10603/378177>
- [5]. Kadhiravan, S. (2019). *Academic stress and resilience among school students (Doctoral thesis, Periyar University)*. <http://hdl.handle.net/10603/363317>
- [6]. Mallick, M.K. & Kaur, S. (2016). Academic resilience among senior secondary school students: Influence of learning environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, VIII, (2), 21-27. [http://rupkatha.com/V8/n2/03\\_Academic\\_Resilience.pdf](http://rupkatha.com/V8/n2/03_Academic_Resilience.pdf)
- [7]. Mishra, V. S. (2018). *Analysis of effect of trataka kriya on short and long serve skill of high school level badminton players of Kanpur Uttar Pradesh (n Doctoral thesis, Pacific Academy of Higher Education and Research University, Udaipur)*. <http://hdl.handle.net/10603/321876>

- [8]. Pal, U.S. (2023). *Effect of Bhramari Pranayama and Trataka Kriya on mental health and sleep quality of the people with insomnia* (Doctoral thesis, Lakshmi Bai National Institute of Physical Education, Gwalior, Madhya Pradesh, India). <http://hdl.handle.net/10603/541791>
- [9]. Panwar, S. K. (2023). *Effect of yogic trataka and jayoti avatara dhyan on the mental health of shooters* (Doctoral thesis, Shri Khushal Das University). <http://hdl.handle.net/10603/481428>
- [10]. Patel, A. (2019). *Effect of yoga exercise on memory, stress and self confidence of secondary school students* (Doctoral thesis, Sardar Patel University). <http://hdl.handle.net/10603/304402>
- [11]. Raghav, D. & Singh. R. (2018). Effect of yogic practices on height and vision among school going children. *International Journal of Innovative Research in Technology*, 8(6), 20-25. [https://ijirt.org/master/publishedpaper/IJIRT153164\\_PAPER.pdf](https://ijirt.org/master/publishedpaper/IJIRT153164_PAPER.pdf)
- [12]. Sudha, R. (2022). *Effect of Trataka kriya with and without shambavi mudra on selected ocular and cognitive variables among women with presbyopia* (Doctoral thesis, Annamalai University), <http://hdl.handle.net/10603/509468>
- [13]. Swathi, P. S. (2022). *Physiological changes associated with trataka (Yogic visual concentration)* (Doctoral thesis, Swami Vivekananda Yoga Anusadhan Samsthan, Bangalore). <http://hdl.handle.net/10603/453597>
- [14]. Shankari, S. V. (2021.) *Effect of yogic practices integrated with yoga Nidra and trataka on selected risk factors among women with sleep disorders* (Doctoral thesis, Tamil Nadu Physical Education and Sports University). <http://hdl.handle.net/10603/358988>

**Cite this Article:**

Dhananjay Debnath , Dr. Dipti Saikia , Dr. Sangita Borah, “Effect of Trataka Yoga on Self efficacy of Secondary School Students” *International Journal of Scientific Research in Modern Science and Technology (IJSRMST)*, ISSN: 2583-7605 (Online), Volume 3, Issue 11, pp. 50-60, November 2024.

Journal URL: <https://ijrmst.com/>

DOI: <https://doi.org/10.59828/ijrmst.v3i11.261>.