

UTILISING MANDALA ART TO ENHANCE ATTENTION SPAN OF STUDENTS

Dissertation submitted to
ST. TERESA' S COLLEGE, ERNAKULAM
(Autonomous)



Affiliated to
MAHATMA GANDHI UNIVERSITY

In partial fulfilment of requirement for the
AWARD OF THE DEGREE OF MASTER OF SCIENCE IN

HOME SCIENCE (BRANCH B)
RESOURCE MANAGEMENT & INTERIOR DESIGNING

By
SURYAGAYATHRI P S
Register No. AM22HRM012

DEPARTMENT OF HOME SCIENCE AND CENTRE FOR RESEARCH

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‘Certified as bonafide research work’

**SIGNATURE OF HEAD OF
THE DEPARTMENT**

**SIGNATURE OF
THE GUIDE**

Chapter 1

INTRODUCTION

Mandala art is a form of artistic expression that has been a tradition in different cultures like Hinduism, Buddhism for many centuries. The word mandala originates from the Sanskrit word ‘Circle’. Mandala art is a spiritual drawing that starts from a centre and spreads out in pattern. Each element in mandala holds significant characteristics. Circle represent the unity, square represent the stability and triangle shows the balance and harmony and the complex pattern convey the interconnectedness of all things in the universe. Creating mandala is thoughtful process it requires patience, focus and attention. The repetitive drawing in mandala creates a state of flow, where it becomes fully immersed in the creative process.

Mandala art was first practiced by Tibetan Buddhists. Later Carl Gustav Jung a Psychiatrist first used Mandala art as a therapy. Jung believes that doing mandala art has a power of integrating psychological division, improving psychological harmony and preserving personality and integrity. He found that the act of Mandala art had a calming effect on patients. Studies have also focused on reducing the negative impact on people.

In today’s world, the ability of maintaining concentration, having focused and attention is becoming increasingly difficult,

especially for students. By practicing the Mandala art it is possible to enhance these cognitive skills. Mandala art engages the mind in a calm and focused manner and also helps in reducing stress and promote inner peace. It allows individuals to immerse themselves fully in the present moment and temporarily escape from worries and distraction. Drawing Mandala has lots of advantages like psychological and emotional which improve the mental health and personal development.

In today's digital world, utilising Mandala art can help to enhance the attention span of the students. Mandala art can be used as tool for promote focus and relaxation to improve student's attention span. Because of its calming effect, Mandala art is a potential tool for enhancing focus and concentration of students. Making Mandalas puts the mind in a concentrated, meditative state that helps improve concentration and slow down racing thoughts. People can fully immerse themselves in the present moment by paying close attention to the intricate patterns and repeated motions needed in generating a Mandala. This procedure can help one to establish a stronger bond with their inner thoughts and feelings. Consequently, creating Mandalas can be an effective way to improve mental clarity and encourage serenity and concentration.

AIM : Aim of the research is to find out the variations perceived in attention span of selected students before and after engaging in Mandala art.

OBJECTIVES :

- Designing Mandala art for students
- Conduct of Mandala art sessions for selected students
- Understand attention span changes through comparing pre and post Mandala art
- Perception of Mandala Art therapy as a aid to improve attention span

Chapter 2

REVIEW OF LITERATURE

This is a study to increase the attention span of the students using mandala art. A review of literature is a evaluation of existing research and articles on a particular topic. The literature pertaining to the study on “Utilising mandala art to enhance students attention span” is discussed under the following heading :

- 2.1 Importance of mental wellbeing
- 2.2 Impact of distraction in students
- 2.3 Therapeutic benefits of mandala art

2.1 Importance of mental wellbeing

According to Wendy Larcombe and Abi brooker, 2019 this study was about mental health problems in students in the university. This study collected and analysed

2776 students responded. It provide a important awareness to educators and administrators about they can help the students to enhance their mental well being and to reduce their stress. For improving the mental well being they can be achieved through only the effective cooperation between students and the educators of the students.

Research showing that students experienced mental well being during life in their transitional period. This study aims to how students maintain their mental well-being going through their adulthood. The result of the study was there were three key needs they need help to overcome from the problem caused in the life , they want to rebuild the relationship who support their life, they want negotiate the tensions (Andalibi et al , 2020)

The study aims to examine the relationship between psychological well-being and general health report of students. Total of 1108 students were surveyed from six universities. The result shows that students perceived their well-being as moderate. Male and female students were participated in this study. Importance of mental well-being and the mental health are presented (Hamdan et al,2007)

Study aims to relationship between the toughness and psychological wellbeing in UG students. The students included in the study from different degree programmes and all three years from UG students. This study analysis found that multiple linear regression of toughness and psychological well-being were moderate (Stamp et al , 2015)

The study aims to investigate the objectives and experience of mental health and wellbeing of first year students. 220 students were completed the questionnaire about the mental well-being and help seeking behaviors. One third of the students were claimed to have seen a mental health professional for a support. This study shows that increasing the public understanding of mental wellbeing on the students familiarity ways for seeking help to improve the mental wellbeing of the students (Goodwin et al , 2016)

Research show that the mental wellbeing of students during Covid – 19 pandemic. It focus on the function of educational institutions and government agencies about

mental well-being and leisure in the area of education. Using the scale they evaluate the mental wellbeing of the students has a score ranging from 7 to 35. The mean score were 19.9, with 95% confidence interval between 19.9,20.2. This result shows the significant portion students suffer poor mental health (Anne et al, 2021)

This systematic review sought to find school-based interventions that promote adolescents' mental health and well-being, to synthesize interventions that already existed, and to provide an overview of the quality of the studies that were identified. 1,199 articles were found in the first search. Fifty-seven of those papers made it into the final synthesis and analysis. There were only four high-quality studies found. Themes that emerged were mindfulness, physical activity, problem-solving and stress reduction, mental health and well-being, and positive psychology. Following execution, more than half of the interventions had a favorable result. Positive psychology and mindfulness were the main focuses of the interventions. (Cilar et al ,2020)

In this article, a UK university's undergraduate students' psychological health from pre-registration through semester two of year three is examined across all faculties. Seven data collection sessions were conducted, and 66% of students who started their studies between 2000 and 2002 participated in the study. Stress levels are usually highest in the first semester, and both the first and third years show a notable decline in discomfort from the first to the second semester. Distress levels never returned to what they were prior to enrollment. Considering that these findings indicate that college is a period with greater distress, it is imperative to make sure that students receive the assistance they require during their academic journey to effectively finish their degree program, thereby facilitating their adjustment to university life and, eventually, the workforce. (Koutsopoulou et al , 2010)

2.2 Therapeutic benefits of mandala art

The research aims to examine the benefits of utilizing mandala art to process painful situations for people with post-traumatic stress disorder. Improvements in

the anxiety, depressive symptoms, PTSD symptoms sickness were analyses to measure the advantages to the participants. After one month mandala art session participants in the group showed a greater decrease in the trauma symptoms. There is no other statistical analysis found. (Henderson et al, 2007)

The study examined the effects of mandala on anxiety and mindfulness were studied. 69 Undergraduate students were selected as participants. The result showed that all the situations are similarly enhancing mood, decreasing the anxiety level and enhancing awareness. In accordance with this study there's variance between colouring mandala and making mandala related to attaining certain goals of therapy (Campenni et al, ,2020)

Study aims to examine to how, an approach similar to the written model meditating on the pleasant feelings of love and happiness while making mandalas linked to greater psychological well-being maintain a positive effect in college students. It hypothesized that while making mandala there will increase in physical health to the control condition. After one month follow up session an analysis is done to compare the experimental and control groups. According to the result there is no difference between the groups.(Henderson, 2012)

The study determine how the mandala art treatment impacted the cancer patients emotions of fear and distress. Score of anxiety level decreased when compared to the before the program. Score level of distress increased when compared to the before the program. Cancer patients reported moderate level of anxiety and distress (Karabuga et al , 2021)

Study shown that drawing on paper could not be effective to reduce stress than colouring mandala. The precise cause of mandala art ability to lower stress remains unclear. This study aim to determine the participants stress and mood after watching colouring mandala and to solve the problem. The result shows that after watching the videos of colouring mandala didn't replicate the effects. (McDougall, 2020)

In this mixed-methods study, the emotional influence of therapeutic art approaches in lowering subjective anxiety was evaluated through a comparison of three

different ways to draw a self-portrait: free drawing, mandala, and literal self-portrait. At any given time, there were no statistically significant variations in the levels of anxiety among the drawing conditions. Drawing conditions had both common and distinctive motifs, according to a qualitative investigation. This study found that, regardless of technique, the act of sketching a self-portrait generally decreased state anxiety. (M.Hill et al, 2021)

2.2 Impact of distraction in students

College students have numerous distractions that impair their focus and hinder them from studying at their best, making it challenging to maintain their attention during class. The study shows the students distraction with their concentration on the class and their ability to listen. The survey was conducted from 265 students between the academic year of 2010 and 2014. The result shown the electronic devices noise distract the mind of the students. 68% of the students distracted by electronic devices and 21% of the students distracted by noise (Attia et al, 2017)

Distractions that are specific to non-classroom settings exist, and many students try to multitask when they are learning online. There is different distraction in classroom setting and student tries multitasking activities during their online study. This study show the six distraction – folding laundry, playing video games , texting in mobile , engaged in conversation, watching low sound video and high sound video. Students were self-reported about the distraction during the learning. Learning were poor at high arousal video (Blasiman et al, 2018)

This study aims to find the distractions of the students towards learning. 300 UG students were taken as participants. A questionnaire was collected to gather the information. T-test were used analyze the hypotheses. The result found that using mobile phones, gambling etc. influence the students it distract the mind of the students. Orientation class and engaging students in activities promote students towards positive attitude. (Uyanga et al, 2023)

There are numerous demands placed on a learner's limited working memory when learning in a multimedia setting, and these demands might escalate as the degree of

distraction in a session grows. This set of studies looks into how learning across lessons with different levels and kinds of distractions is influenced by individual differences in executive function and working memory capacity. This investigation revealed that decreasing the novelty of IVR for learners had no effect on learning, suggesting that novelty may not be the cause of IVR classes' greater distractibility. (Lawson et al, 2023)

Internet and computer connectivity in the classroom may be essential for research and instruction for both teachers and students. The scope of this practice among college students is examined in this research, along with potential contributing factors. The study examined a variety of aspects, such as the student's learning preferences, classroom dynamics, and Internet addiction. The findings indicate that the degree of Internet addiction, the degree of instructional and learning style mismatch, and a few other specific characteristics all significantly affect how much students engage in distracting activities. (Muyingi, 2014)

2.3 Therapeutic benefits of mandala art

Limited controlled empirical research has been done on the therapeutic effects of mandalas on mental health. Aims to examine the benefits of utilizing mandala art to process painful situations for people with post-traumatic stress disorder. Improvements in the anxiety, depressive symptoms, PTSD symptoms sickness were analyses to measure the advantages to the participants. After one month mandala art session participants in the group showed a greater decrease in the trauma symptoms. There is no other statistical analysis found. (Henderson et al, 2007)

The effects of instruction (directed expression and free expression) and mandala (organized and unstructured) on anxiety, mood, and mindfulness were investigated in this randomized controlled trial. The study examined the effects of mandala on anxiety and mindfulness were studied. 69 Undergraduate students were selected as participants. The result showed that all the situations are similarly enhancing mood, decreasing the anxiety level and enhancing awareness. In accordance with

this study there's variance between colouring mandala and making mandala related to attaining certain goals of therapy (Campenni et al, ,2020)

Studying human virtues and the importance of positive emotions for personal growth, resource expansion, and improved mental health are two areas of positive psychology research that never stop advancing our knowledge of the importance of positive emotions. Study aims to examine to how, an approach similar to the written model meditating on the pleasant feelings of love and happiness while making mandalas linked to greater psychological well-being maintain a positive affect in college students. It hypothesized that while making mandala there will increase in physical health to the control condition. After one month follow up session an analysis is done to compare the experimental and control groups. According to the result there is no difference between the groups.(Henderson, 2012)

This research was designed to find out how art-based mandala interventions affected cancer patients' feelings of anxiety and despair. Score of anxiety level decreased when compared to the before the program. Score level of distress increased when compared to the before the program. Cancer patients reported moderate level of anxiety and distress (Karabuga et al , 2021)

Chapter 3

METHODOLOGY

Research methodology refers to a systematic process to investigate a study. It includes method of defining the problem, in the research the type of data collected and the methods used for collecting and analysing the data.

Methodology adopted for the study entitled “Utilising Mandala Art to enhance attention span of students” comprised of following steps

3.1 Selection of Area

3.2 Selection of Sample

3.3 Selection of Method

3.4 Creation and Selection of Mandala Art Design

3.5 Selection of Tool

3.6 Collection of Data

3.7 Analysis of Data

3.1 Selection of Area

The selected area for the study is St.Teresa’s College Autonomous, Ernakulam. This area was selected due to the easy access and easy convenience and the availability of sample. Validated

3.2 Selection of Sample

Purposive sampling was the technique used. Undergraduate and Post graduate final year students were selected for this research to enhance their attention span so that they could benefit for their final exam. A total of 35 participants were chosen, based on their willingness to partake in the study, since it entailed a continuous session of one hour for a period of 21 days. Students who were willing to participate and those who had

get less than A grade for their previous semester exam were selected purposively for the study.

3.3 Creation and Selection of Mandala Art Design

Suitable Mandala Art designs were created by the investigator herself, shown to a panel of 5 experts in Art, and finalized for the study. The Mandala Art work created are given in the Appendix.

3.4 Selection of Tool

A validated score card to ascertain the attention span, developed by ‘attention control scale’ was used as the tool for the study. This was given as before and after, so that the attention span level before and after the mandala art session could be measured. The questionnaire contains list of questions related to study the attention level of the students.

3.5 Collection of Data

The selected students were given sessions of Mandala Art, and were used to collect data regarding level of attention.

3.7 Analysis of Data:

The collected data was analyzed using percentage analysis and they were compared. These results were shown in the result and discussion.

CHAPTER 4

RESULT AND DISCUSSION

The result of the study entitled “Utilising mandala art to enhance attention span of students” are presented under the following headings.

4.1 Ability to concentrate in noisy environment

4.2 Level of distraction while reading/studying

4.3 Level of distraction while solving problems

4.4 Ability to attend while taking lecture notes

4.5 Level of distraction while multitasking

4.6 Ability to focus and be mindful

4.7 Ability to refocus after shifting attention

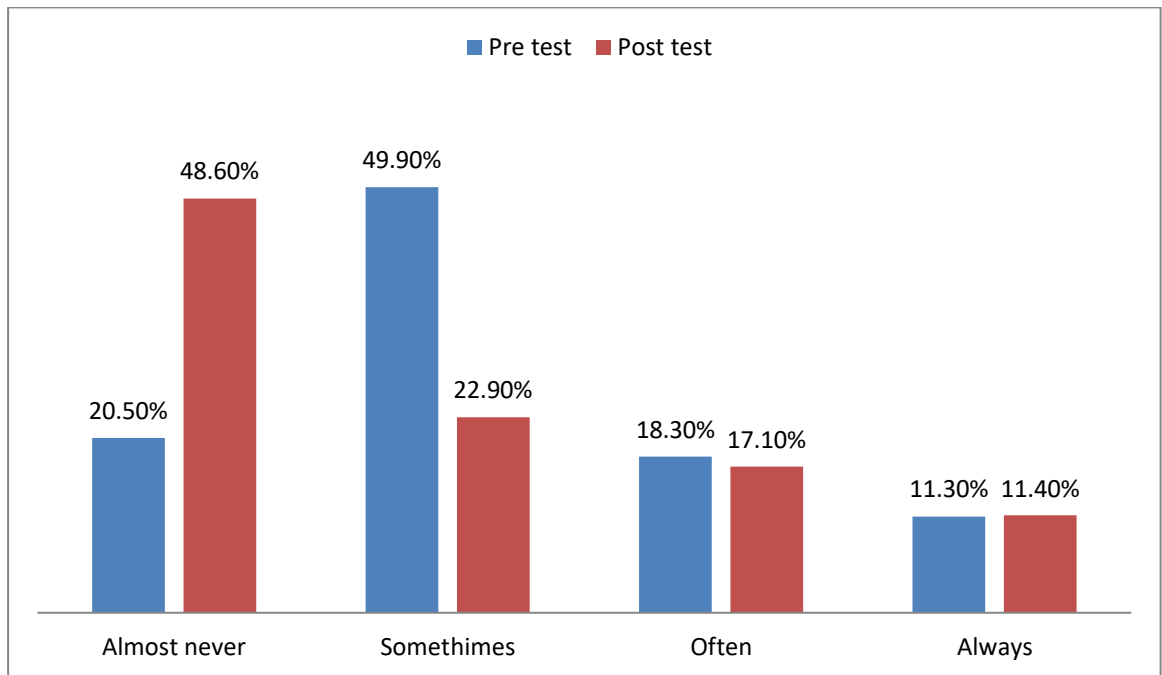
4.8 Ability to innovate and be creative

4.1 Ability to concentrate in noisy environment

Table 1 - Ability to concentrate in noisy environment

The	Level of distraction	Response in Percentage		study
		Pre test	Post Test	
	Almost never	20.5%	48.6%	
	Sometimes	49.9%	22.9%	
	Often	18.3%	17.1%	
	Always	11.3%	11.4%	

shows that students showed a great improvement in their ability to concentrate in noisy environments with a marked difference in percentage scores which shifted from 20.5% to 48.6 %.

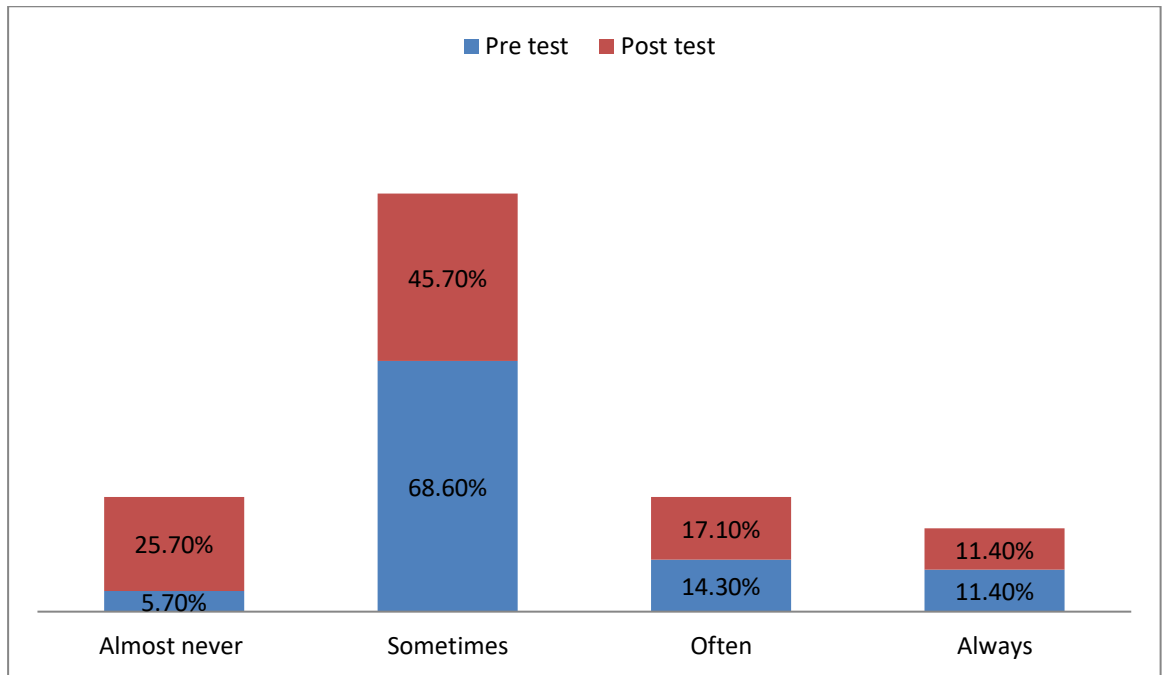


4.2 Level of distraction while reading/studying

Table 2- level of distraction while reading/studying

Level of distractions	Response in percentage	
	Pre test	Post test
Almost never	5.7%	25.7%
Sometimes	68.6%	45.7%
Often	14.3%	17.1%
Always	11.4	11.4%

The study shows that students showed a great improvement in their level of distraction while reading/studying with a marked difference in percentage scores which shifted from 5.7 % to 25.7%



4.3 Level of distraction while solving problems

Table 3 – Level of distraction while solving problems

Level of distractions	Response in percentage	
	Pre test	Post test
Almost never	14.3%	40%

Sometimes	68.6%	42.9%
Often	14.3%	11.4%
Always	2.8%	2.8%

The study shows that students showed a great improvement in their level of distraction while solving problems with a marked difference in percentage scores which shifted from 14.3 % to 40%

4.4 Ability to attend while taking lecture notes

Table 4 – Ability to attend while taking lecture notes

Level of distractions	Response in percentage	
	Pre test	Post test

Almost never	17.1%	42.9%
Sometimes	71.4%	40%
Often	8.6%	17.1%
Always	2.3%	0

The study shows that students showed a great improvement in their ability to attend while taking lecture note with a marked difference in percentage scores which shifted from 17.1% to 42.9%

4.5 Level of distraction while multitasking

Table 6 –Level of distraction while multitasking

Level of distractions	Response in percentage	
	Pre test	Post test

Almost never	11.4%	28.6%
Sometimes	60%	51.49%
Often	20%	11.4%
Always	8.6%	8.6%

The study shows that students showed a great improvement in their level of distraction while multitasking with a marked difference in percentage scores which shifted from 11.4% to 28.6%

4.6 Ability to focus and be mindful

Table 6 - Ability focuses and be mindful

Level of distraction	Response in percentage	
	Pre test	Post test
Almost never	11.4%	25.7%
Sometimes	62.9%	51.49%

Often	22.9%	22.9%
Always	2.8%	0

The study shows that students showed a great improvement in their ability to focus and be mindful with a marked difference in percentage scores which shifted from 11.4% to 25.7%

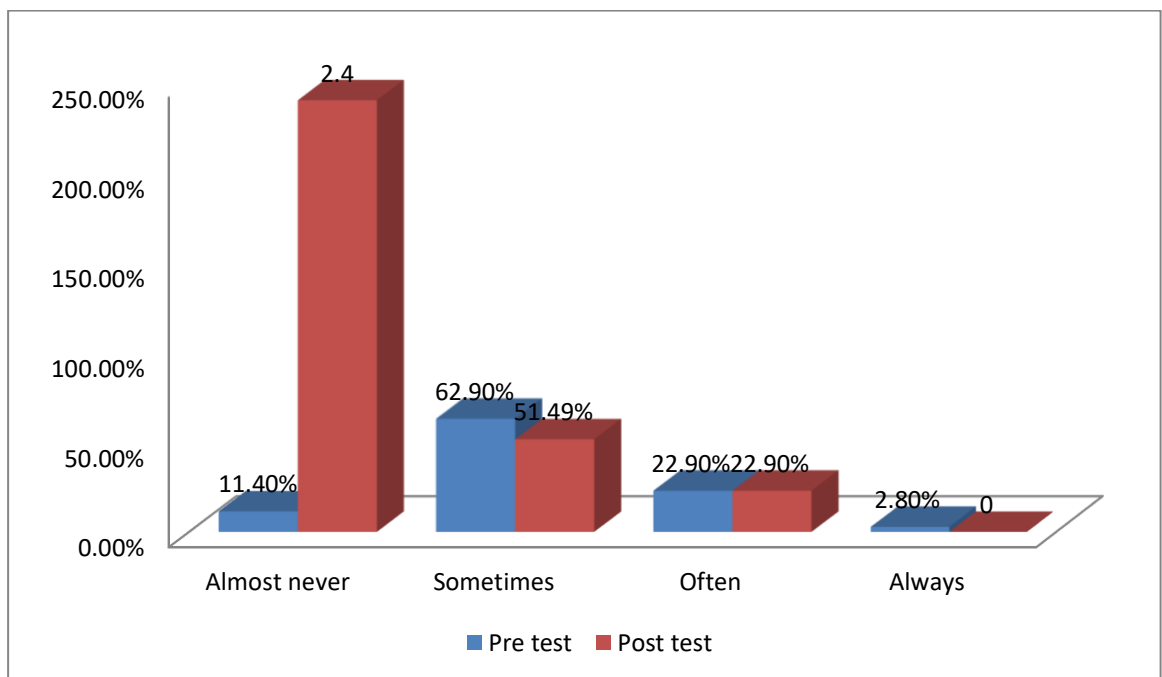


Fig 3 - Ability to focus and be mindful

4.7 Ability to refocus and after shifting thoughts

Table 7 - Ability refocus and after shifting thoughts

Level of distraction	Response in percentage	
	Pre test	Post test
Almost never	8.6%	31.4%

Sometimes	68.6%	40%
Often	17.1%	25.7%
Always	5.7%	2.9%

The study shows that students showed a great improvement in their ability to refocus and shifting thoughts with a marked difference in percentage scores which shifted from 11.4% to 25.7%

4.8 Ability to innovative and be creative

Table 8 – Ability innovative and be creative

Level of distraction	Response in percentage	
	Pre test	Post test

Almost never	11.4%	42.9%
Sometimes	57.1%	45.7%
Often	20%	5.7%
Always	11.4%	5.7%

The study shows that students showed a great improvement in their ability to innovative and be creative with a marked difference in percentage scores which shifted from 11.4% to 42.9%

Chapter 5

SUMMARY AND CONCLUSION

The study entitled “**Utilizing Mandala Art to enhance attention span of students**” is aimed to find out the variations perceived in attention span of selected students before and after engaging in Mandala art.

The results obtained from the study can be summarized as below:

- The study reveals a substantial enhancement in students' ability to concentrate in noisy environments, with scores rising from 20.5% to 48.6%. This indicates a noteworthy improvement in focus amidst distracting conditions.
- It is indicated that a significant decrease in student distraction levels while reading or studying, with scores shifting from 5.7% to 25.7%. This suggests a notable improvement in focus and concentration during academic tasks.
- The study demonstrates a significant enhancement in students' ability to concentrate while solving problems, with scores increasing from 14.3% to 40%. This shows improvement in focus during problem-solving tasks
- There considerable improvement in students' ability to focus while taking lecture notes, with scores rising from 17.1% to 42.9%. This suggests a significant enhancement in attention during academic activities.

- The study shows improvement in students' ability to manage distractions while multitasking, as evidenced by scores increasing from 11.4% to 28.6%. This suggests a significant enhancement in focus and efficiency during simultaneous tasks.

CONCLUSION

The findings suggest that practicing Mandala Art can effectively enhance the attention span of students and their creative ability. By providing a visually stimulating and calming activity, it helps the students to develop essential concentration skills that are crucial for academic success. The utilization of Mandala Art emerges as a method to enhance various cognitive skills among students.

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APPENDIX 1

Questionnaire for collecting the information about the level of attention span of students.

It's very hard for me to concentrate on a difficult task when there are noises around

- Almost never
- Sometimes
- Often
- Always

When I need to concentrate and solve a problem, I have trouble focusing my attention

- Almost never
- Sometimes
- Often
- Always

When I am working hard something , I still get distracted by events around me

- Almost never
- Sometimes
- Often
- Always

When I am reading or studying, I am easily distracted if there are people talking in the same room

- Almost never
- Sometimes
- Often
- Always

When trying to focus my attention on something I have difficulty blocking out distracting

- Almost never
- Sometimes
- Often
- Always

It takes me a while to get really involved in a new task

- Almost never
- Sometimes
- Often
- Always

It is difficult for me to coordinate my attention between the listening and writing required when taking notes during lectures

- Almost never
- Sometimes
- Often
- Always

I have trouble carrying on two conversations at once

- Almost never
- Sometimes
- Often
- Always

When a distracting thought comes to mind, it is easy for me to shift my attention away from it

- Almost never
- Sometimes
- Often
- Always

It is easy for me to alternate between two different tasks

- Almost never
- Sometimes
- Often
- Always

After being interrupted or distracted, I can easily shift my attention back to what I was doing before

- Almost never
- Sometimes
- Often
- Always

It is easy for me to read or write while I'm also talking on the phone

- Almost never
- Sometimes
- Often
- Always

It is hard for me to break from one way of thinking about something and look at it from another point of view

- Almost never
- Sometimes
- Often
- Always

I have a hard time coming up with new ideas quickly

- Almost never
- Sometimes
- Often
- Always

My concentration is good even if there is music in the room around me

- Almost never
- Sometimes
- Often
- Always

When concentrating, I can focus my attention so that I become unaware of what going on in the room around me

- Almost never
- Sometimes
- Often
- Always

APPENDIX 2