Breath Awareness: Creative Media Design Process for Enhancing Resilient Quotient Based on Buddhist Psychology[1]

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Abstract

This research aims to achieve the following objectives: 1. Explore and Produce media based on the principles of Buddhist Psychology to increase awareness of breathing. 2. Examine the production process of creative media in enhancing breath awareness and resilience quotient. The theories and framework for this research were derived from Dhātu 4 (The Four Elements) and Bala 5 (The Five Powers), which were used to create a resilient quotient for the design process. Additionally, a psychological theory involving cognitive and behavioural therapy was employed to create a learning experience that induces mental changes. The methodology used in this research was a mixed-methods approach such as questionnaire, and the evaluation of resilience quotient. The analysis of the data included mean, standard deviation, and paired-sample t-test. The final research found that the media design process of breath awareness into three rooms in one hour received an overall high level of approval from the 30 participants, with an average score of 4.01 and a standard deviation of 0.705. Additionally, breath awareness increased the students' resilience quotient by an average score of 3.13 points. Of the 30 students, 23 showed an increase in resilience quotient (79.97%), while 6 students scored less on the assessment (20%) and 1 student had a stable score.

Keywords: Breath Awareness; Resilience Quotient; Creative Media Design process; Buddhist Psychology

Introduction

Adolescent mental health issues are a worldwide concern, especially after the recent epidemic crisis. Several factors, including disruptions to daily life, schooling, social isolation, family stress, and economic challenges, contribute to this problem. Studies have shown a significant increase in depressive and anxious symptoms among adolescents, as well as a decline in overall mental health (Guido, 2023), compared to before the pandemic (Samji, Wu,

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Ladak, & Vosse, 2021). According to the World Health Organization, suicide is the fourth leading cause of death among people aged 15 to 29 worldwide (WHO, 2023). In Thailand, the website Mental Health Check-in reported that around 7-8% of Thai people are at risk of committing suicide, and this number is on the rise. Furthermore, teenagers (15-19 years old) have a higher rate of suicide attempts compared to other age groups, with Chiang Mai province having the highest suicide rate at 13.51 (Department of Mental Health, 2020). The mental health problems of Thai teenagers today mostly stem from behavioural, emotional, and social issues, which affect their ability to learn and grow in both academic and everyday contexts. To address this, the Department of Mental Health in Thailand introduced a Resilience Mind campaign called Tolerance, Determination, and Encouragement to aid them in overcoming these challenges. However, access to mental health services remains low, similar to other developing countries (Kim, Gäbel, Aguilar, Hilleck, & Warth , 2018), including among university students in Thailand. One effective method of building resilience for adolescents, as indicated by research on Buddhist psychology, is the use of the Five Powers (Bala5) principle and the concept of good friendship (Kalyanamittata) to promote mental empowerment. This helps enhance their ability to understand and adapt to the physical, emotional, and social changes they experience during this phase of life (Gadetragoon, Srikhruedong, & Phoowachanathipong, 2022). It aids in developing self-esteem, self-confidence, and the ability to make decisions. Additionally, Buddhist Psychology empowers them to face challenges with emotional stability, learn from experiences, and choose paths that lead to a good quality of life and happiness. The keystone of Buddhist psychology focuses on three steps: theory (Pariyatti), practice (Patipatti), and outcome (Pativedha) (PhraBrahmapundit, 2022) .These are the psychological processes of healing the mind based on Buddhist philosophy.

Buddhist psychology encompasses the psychological teachings and principles of Buddhist philosophy and practices. It seeks to understand the nature of the mind, the causes of suffering, and methods for achieving mental well-being and personal growth (Kelly, 2008). In the meantime, Buddhist psychology helps individuals recognize patterns of thought and emotion that may cause distress and develop the ability to respond to these experiences with compassion and understanding. This underscores the practicality of cultivating positive mental states and overcoming negative ones. Breath awareness is a crucial tool in this journey, empowering individuals to find peace and deepen their connection with the present moment. It allows individuals to become more aware of their thoughts, emotions, and bodily sensations, enabling them to observe these experiences without judgment or attachment. Adolescents, in particular, can benefit significantly from breath awareness practice as it enables them to observe their thoughts and emotions without becoming entangled in them, leading to a more balanced and mindful approach to managing stress, anxiety, and other challenges they may face. Research results have shown that breath awareness can help harmonize the body and mind, leading to better mental clarity, reduced stress, and potentially better physical health

due to relaxation and stress management (Huberty, et al., 2019). Breathing exercises for mental healing are often integrated with psychological therapies such as Mindfulness-Based Stress Reduction (MBSR) or Mindfulness-Based Cognitive Therapy (MBCT) due to the connection between respiration and the mind (Koike, 2020). Additionally, a study showed that Hatha yoga therapy taught to young adults aged 18 to 25 with moderate to severe major depressive disorder resulted in both statistically and clinically significant reductions in the severity of depression (Vuchansu, 2022) Lucas's breathing model promotes relaxation and stress reduction, enhancing deep sleep and aiding in falling asleep faster. It also helps awaken the sympathetic nervous system, promoting alertness for everyday tasks (Rockwood, 2018). According to Buddhism, the mind is considered “the boss” of the body, commanding and influencing its actions and functions. Through the power of cognition, the mind directs bodily movements, processes sensory information, and regulates various bodily functions such as breathing and heart rate. Moreover, the mind also plays a significant role in influencing physical health. Research has shown that psychological factors, such as stress and emotions, can profoundly impact physical well-being (Yaribeygi, Panahi, Sahraei, & Sahebkar, 2017). Moreover, breath control can serve as a means to heal mental issues. This awareness allows individuals to respond to stressors and challenges more adaptively and compassionately, leading to improved mental and physical health outcomes.

The creative media design process in this field is not just another method, but a truly transformative approach. It is a unique way to develop visually captivating content that effectively communicates a concept. By leveraging various forms of media, such as visuals, audio, and text, it captures the audience's attention, conveys information, and achieves the desired outcome by promoting breath awareness. Research has shown that multisensory training can lead to more efficient learning than unisensory training. For example, studies have demonstrated that auditory-visual training can significantly reduce the training needed and improve performance compared to visual-only training (Shams & Seitz, 2008). The media design processes go beyond capturing attention. They can make breath awareness more enjoyable and accessible for adolescents. It is not just about using multimedia for multisensory experiences but also about designing space for the perception of spatial visualization, a type of creativity crucial for problem-solving and innovation within technical fields. The study of creativity, visualization abilities, and visual cognitive style focuses on the contribution of visualization abilities and cognitive styles to different dimensions of creativity (Kozhevnikov, Kozhevniko, Yu, & Blazhenkova, 2013). For therapeutic experiences, digital storytelling as a co-creative practice can also build resilience and contribute to co-creating places (Heck & Tsai, 2022). There are articles about music therapy that show that the effective media used is live music, and the heartbeat can work with the music through a process known as dynamic rhythmic entrainment. Music therapy involves a bi-directional synchronization between a heartbeat and an external musical beat. As the therapy session progresses, the music's tempo

can be gradually decreased. This can lead to psychophysiological relaxation, as observed in the study, where entrainment to a decreasing tempo increases peripheral blood flow and subjective well-being (Kim, Gäbel, Aguilar, Hilleck, & Warth , 2018). Research on meditation and five precepts has shown that meditation and precepts significantly affect the relationship between attachment and resilience of mind (DeMaranville, Wongpakaran, Wongpakaran, & Wedding, 2022). Other research reported that the mindfulness meditation group appears to positively impact college students' academic persistence, demonstrated by a high persistence rate and self-reported positive influence on academic performance (McKenzie , 2022). Creative media can tailor the message and delivery to serve the desires and preferences of adolescents, making the practice more relatable to their lives. This adaptability is a key strength, as it ensures that the messages are engaging and resonate with the target audience, enhancing the potential for promoting breath awareness and mental resilience among adolescents. It can increase motivation and interest in practicing, also enhancing the indirect way of their education. The phenomenological aspects of meditation, such as changes in the sense of location, agency, and perspective, as well as attention, body sensations, and emotional states, are assessed in relation to different meditation techniques and the extent to which they contribute to the sense of self-dissolution (Nave, et al., 2021). Moreover, creative media provides a powerful platform for self-expression and reflection, linked to research on creativity as a crucial component of resilience, positively impacting self-efficacy, with a moderating effect on highly creative adolescents (Xu, Yang, Yan, Li, & ZhangJi, 2022). A sample of multimedia for guiding individuals through breathing exercises is currently being developed, such as Clam (app), Headspace (movie, app), and Muse (app, brain scanner). For example, the Clam application mainly helps to calm the mind by using sound and nature videos. The Muse Application creates breathing exercises to help strengthen the mind using the principles of psychological therapy and various breathing methods, such as Resilience Refuge, Finding Strength of Mind, Reflect on Resilience, bouncing back from Adversity, Facing Obstacles, Cultivating Acceptance, and Inner Stability and Balance (Dufour, Kamau, Michel, Prete, & Stewart, n.d.). The Muse application is explained mainly by stimulating speaking, imagining the problem, confronting it, thinking positively, and trying to find a solution step by step. Moreover, the way of practice involves shifting focus to different body parts. In contrast, the Willpower Institute highlighted that when meditating, one must know how to control breathing and put the mind to concentrate on one place, try not to think, and let the mind empty (SomdetPhraYanawachirodom, 2016). Furthermore, this is the basis for developing a powerful mind to enter a higher state of mind. In this regard, mindfulness is practiced to concentrate on the initial stage of awareness.

This research aims to develop a creative media design that enables users to experience tranquillity and relaxation by breathing using therapy principles through visual and audible media, using principles from both Buddhism's meditation and psychotherapy. The study seeks

to fill the gap in previous research by integrating knowledge from these areas into designing environment and media. It aims to enhance awareness of the connection between breathing and mental resilience, and to understand how creative media design can help individuals achieve resilience. The study will involve 30 undergraduate students in the RMUTL communication design program. It will apply various media design theories, including Gestalt Theory, colour psychology for healing, Sergei Eisenstein's Montage, and sound therapy theory. Additionally, it will utilize cognitive behaviour therapy, arousal theory, and Howard Gardner's three systems theory in designing learning activities. The media content will include print media, photographs, posters, video interviews, and experimental videos, organized into three different activities. Each room in the designed building will focus on different aspects of the process: "Think," "Act," and "Feel," corresponding to cognitive processes, breathing practices, and cultivating specific emotions, respectively. The study will measure the effectiveness of the media design by using an EEG app (MUSE app) for a calm mind with the breathing exercise method, and by using the Resilience Quotient form to measure resilience before and after individuals partake in the creative media design process. The hypothesis is that participants will become more mindful of their breath, leading to sustained breathing control practices and increased resilience quotient.

The Objectives of Research

1. To study and explore creative media for cultivating a peace of mind among college students.

2. To produce creative media design process based on Buddhist psychology to enhance breathing awareness and resilient mind among college students.

3. To compare the resilience quotient score of college students from before and after used the creative media design process of breath awareness.

Research Methodology

This study aims to examine the breath awareness process from creative media for a resilient mind through Buddhist psychology. Mixed methods research and a multi-step evaluation were employed, and the details are as follows.

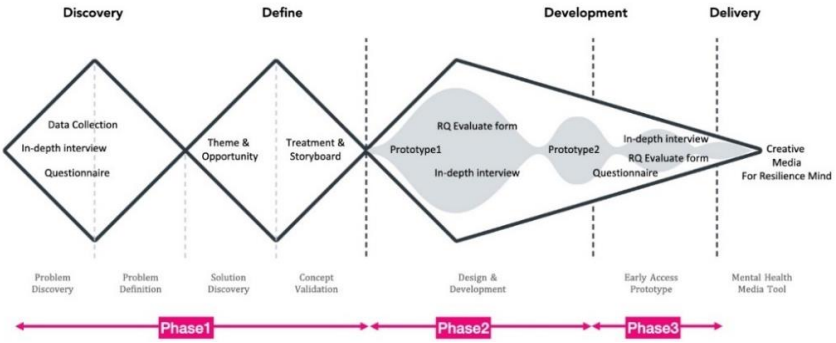

Figure 1 Research Methodology

Phase 1, a unique blend of data collection methods, involved gathering information from documents, theories, related research, in-depth interviews, and questionnaires. The use of simple random sampling, coupled with an online consent form, allowed for the collection of responses from 82 college students over a two-month period. An online questionnaire was then used to gauge the opinions of students with normal cognitive abilities on meditation and focus maintenance. The insights gained from this phase were instrumental in shaping the media design for the subsequent phase.

In Phase 2 of the research, qualitative methods were used. The study involved creating media prototypes and an awareness process through activities in three different rooms. Before starting the activities, participants provided consent and then spent one hour alone in the entire process. The design process was based on concepts from Buddhist Psychology, specifically The Five Powers (confidence, effort, mindfulness, concentration, and wisdom), which were elaborated in each room: Room 1 focused on confidence and effort, Room 2 on effort, mindfulness, and concentration, and Room 3 on concentration and wisdom. The concept of Four Elements (Earth, Fire, Wind, Water) also guided the media design in each room: Room 1 for print media, Room 2 for sound therapy, and Room 3 for experimental film. The study used purposive sampling to select twenty participants interested in meditation, such as meditators, monks, nuns, lecturers, moviemakers, and college students. Data was collected from the participants through in-depth interviews and the Resilience Quotient (RQ) assessment by the Department of Mental Health, Ministry of Public Health, Thailand (2023). The results obtained from this phase were used to develop media and processes in the subsequent phase.

In Phase 3 of the study, a qualitative research method was used to evaluate the designed media and process. The process was similar to Phase 2, with three rooms and one person spending an average of one hour for the entire process. Each room had instructions and staff to guide the participant through the process, and booking was required, with data collection taking place over three months. Before the activities began, participants completed a form consenting to human ethics standards of SURIC-Silpakorn University and took a Resilience Quotient (RQ) test. The collected data was analyzed using descriptive statistics such as percentages and standard deviation. A paired-sample t-test was conducted on the data obtained before and after engaging in the activities to assess the Resilience Quotient. Furthermore, data and comments were gathered from thirty undergraduate students through in-depth interviews.

Research results

Objective 1. The findings show that visual and auditory perception was the suitable medium, which lasted less than 15 minutes. The preferred presentation involved scenes of nature, trees, sky, and sea. The most calming tones listed were blue, turquoise, and white.

Regarding the meaning of concentration, the most common definitions included focus, awareness, serenity, attention, and not pondering. The most effective learning styles were experiential, studio-based, and challenging. Effective learning was projected by teachers acting as facilitators, explainers, and advisers for the students, as shown in figure 1.

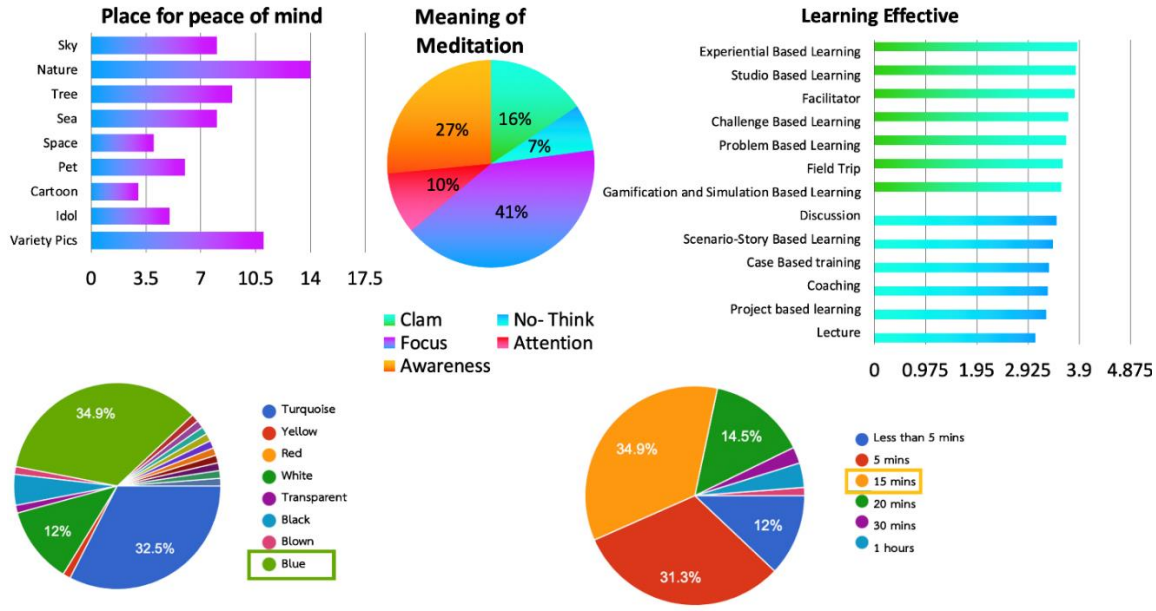

Figure 2 Summary of guidelines for designing media for cultivating a peace of mind (N=82)

From Figure 2, the information was used in the subsequent step to design the media and process. Elements such as peace of mind colour, and duration were used for design; media, content, and Video experimental. Additionally, the meaning of meditation and effective learning were incorporated into the design process.

Objective 2. The results found that the concept of Four Elements was employed to design the media for breath awareness based on the Buddhist psychology principles for building resilient mind. The activities for each room were divided using Dhamma Power Five with a combination of the principles of psychology: cognitive therapy, behavioural therapy, and sensations. The presentation concepts were categorized into three rooms as show below.

Table 1 the structure of Prototype1: Creative media design process, divided into 3 rooms.

Room	Concept for Media	Process	Result
1	**The Four Elements:** Print media, Sound of breath, Video Introduction **Results from Phase1:** Awareness, Focus, Clam Facilitator, Blue, Turquoise, White, 20 mins	**The Five Powers:** Faith, Effort **Psychology:** Cognitive (Knowledge)	**Think**

Room	Concept for Media	Process	Result
2	**The Four Elements:** Sound, Light, Ambient **Results from Phase1:** 5 mins, Focus, Clam, Experimental Based Learning	**The Five Powers:** Effort, Mindfulness, Concentration **Psychology:** Behavior (Calm Mind)	**Act**
3	**The Four Elements:** Video Experimental, EEG **Results from Phase1:** 15 mins, Blue, Turquoise, White, place for peace of mind, Focus, Clam, Challenging Based Learning	**The Five Powers:** Mindfulness, Concentration, Wisdom **Psychology:** Sensation (Controlling Mind)	**Feel**

In Table 1, the first room, designed to stimulate the thinking process, was crafted with unique features based on cognitive theory. It focused on instilling faith and awareness about the positive effects of respiration on the body and mind. The room's design included posters and video introductions showcasing real-life examples of individuals whose lives improved due to breathing exercises. It also featured a variety of breathing-related media, such as videos demonstrating different organs involved in breathing, audio interviews with professionals discussing their perspectives on breathing, printed materials with images and text about breathing exercises, and QR codes linked to instructional videos. The room's sound design, which featured various professions' breath patterns, was particularly effective in increasing breath awareness.

The second room, dedicated to breath practices, was designed with a focus on behavioural therapy. It emphasized the importance of persistent breathing to induce mindfulness and concentration. Participants engaged in walking meditation, focusing on the lighting, and listened to audio media based on binaural beats theory for a 5-minute breathing exercise. The room's design and activities were carefully chosen to ensure the practical application of the research, engaging the participants in the process and the effectiveness of the intervention.

The third room, designed to cultivate a calm feeling, was centred around creating distinct sensations. It challenged participants to practice staying focused and training their minds to concentrate on a video experiment without interpretation. The room featured a 15-minute video showing images of nature representing the four elements, while monitoring participants' brain wave activity to gauge their concentration levels. The unique design and activities of the room were aimed at providing a distinct and memorable experience for the participants, setting it apart from the other rooms.

The results of the Resilience Quotient (RQ) assessment in this phase showed that, in general, adults have significantly higher RQ scores compared to college students. Twenty-five percent of adults scored high on the RQ, while only 5% of students did. The average level for

adults is 30%, whereas for students it is 20%. None of the adults scored in the lower level, whereas 15% of college students had a lower RQ. In terms of conducting in-depth interviews, it was noted that the second room was the most effective environment for the participants' experience. They felt calm and desired to spend more time in that section.

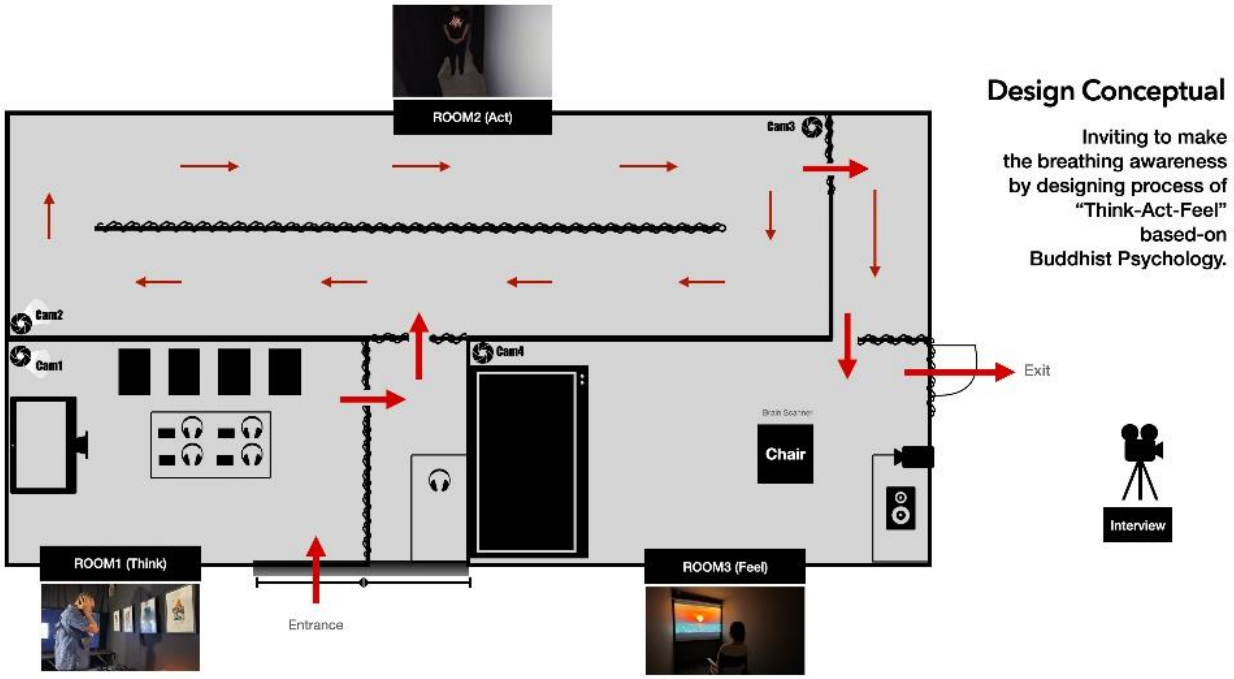

Figure 3 Top view of the room layout for "Let's Take a Breath" Exhibition

Objective 3. The outcome of a resilient mind after participating in the activities.

The findings show that the designed process enhanced the resilience of students who participated in the activities. Overall, the average score 3.1 points, with pressure tolerance rising by 1.4 points, encouragement by 1 point, and the ability to confront and overcome obstacles by 0.7 points (Tables 2). In addition, the number of students performing below average decreased by five, or 16.67%. Three students with average scores increased by 10%, and two with higher scores increased by 2, representing 6.67%. In addition, twenty-three students' assessment scores increased, accounting for 76.67 percent. Six students had scores, representing 20%, and one maintained stable score, making up 3.33% of the total 30 students (Tables 3 and 4).

The final research found that the media design process of breath awareness into three rooms in one hour received an overall high level of approval from the 30 participants, with an average score of 4.01 and a standard deviation of 0.705. Additionally, breath awareness increased the students' resilience quotient by an average score of 3.13 points. Of the 30 students, 23 showed an increase in resilience quotient (79.97%), while 6 students scored less on the assessment (20%) and 1 student had a stable score. From Figure4, the result of the Resilience Quotient score, from college students before and after participating in the

exhibition, is a statistically significant difference of 0.5, showing that students increasingly experienced a resilient mind.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Before	57.33	30	7.535	1.376
	After	60.67	30	7.359	1.344

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Before & After	30	.899	.000

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Before - After	-3.333	3.346	.611	-4.583	-2.084	-5.457	29	.000

Figure 4 the tables of paired-sample t-test showed RQ score of 30 college students before and after participating the exhibition.

Table 2 Overall mean of the assessment results of resilience mind in various aspects before and after.

N=30

Resilience Quotient	Before		After		Overall		Different of Mean Point
	Mean point	Meaning	Mean point	Meaning	Mean point	Meaning	
Tolerance	28.1	Normal	29.5	Normal	28.6	Normal	+1.4
Determine	14.5	Normal	15.6	Normal	15.0	Normal	+1.0
Encouragement	14.8	Normal	15.6	Normal	15.4	Normal	+0.7
Total	57.5	Normal	60.6	Normal	59.0	Normal	+3.1

Table 3 Number of students and percentage before, after, and overall based on a Resilience Quotient (RQ) assessment of the Department of Mental Health.

N=30

The Evaluation of RQ form	Before		After		Different	
	Number of students	Percentage	Number of students	Percentage	Number of students	Percentage
Below the Line (<55 points)	11	36.67	6	20.00	-5	-16.67
Normal (55-69 points)	17	56.67	20	66.67	+3	+10.00
Above the Line (>69 points)	2	6.67	4	13.33	+2	+6.67

Table 4 Number of students per change in the total score from a Resilience Quotient (RQ) assessment.

N=30

RQ Different	Number of students	Percentage
Increasing	23	76.67
Decreasing	1	3.33
Stable	6	20.00

The results of the first objective showed that looking at nature-related images can create a sense of calm. Statistically, using natural imagery during meditation can significantly reduce tension. It treats stress and negative emotions (Raynold, et al., 2020). Students preferred blue, turquoise, and white when choosing colors that promote relaxation. This is because the color blue reduces the activity of the sympathetic nervous system, promoting relaxation and calm (Taoka, 2016). Light blue is good for relaxation and sleep, while darker blue stimulates the brain, improving attention and concentration. Intense blue boosts brain activity, light blue-green refreshes the mind, and vibrant turquoise energizes while promoting calmness and refreshing the body and mind; white color symbolizes purity, innocence, goodness, and calmness (Haller, 2019).

Regarding the creative media design process, the top 3 scores demonstrate significant success. Following their participation in the exhibition, college students' RQ scores increased. Each room showcased various types of media that align with students' media-viewing behavior. This process promotes media consumption in each room and encourages visitors to engage in breathing awareness exercises, which can aid in enhancing mental resilience. The findings also indicate that the ideal time for achieving concentration in 5 seconds, 15 seconds, and 30 seconds. Similarly, Somdet Phra Yanawachirodom's concept of basic meditation (2016) suggests that beginners can achieve optimal results in 5 minutes if consistently practiced three times a day, which can be further extended to 30 minutes—the ideal duration for daily sitting meditation.

The results of the second objective demonstrate that the research design incorporates principles of Buddhist Psychology, specifically The Five Powers. These powers consist of: 1. faith (Saddhā), 2. energy or effort (Viriya), 3. mindfulness (Sati), 4. concentration (Samādhi), and 5. wisdom (Paññā). They are crucial for the development of cognitive behaviour therapy through breath awareness. Each power plays a unique and significant role in the development of cognitive behaviour therapy. The Four Elements—Earth, Water, Air, and Fire- also represent the truth of life on earth for all humanity. It is present in everything and everywhere, representing the existence of the human self and the living things around humans. Everyone can connect, reach, and understand the Four Elements without any doubt. These theories were used for the creative media design process as a detail; the first room, based on The Five Powers, corresponds to the work of Gadetragoon et al. (2022). Their study indicates that faith is the first power leading to success. Confident teenagers who believe in their

potential and abilities gain the power to move forward, fostering perseverance. Using the sounds of a person who has successfully practiced breathing exercises stimulates or induces a path of faith (Phra Phom Kunaphorn, 2014). Building faith is intrinsic awareness, and encouraging people to understand the value of breath and its positive meaning can change their mindset and behaviour (Hemmings, 2022).

The second room, designed to provide a calm experience, is based on perseverance, mindfulness, and concentration principles. The activity in this room involves walking meditation, aiming to create a space for practicing and challenging perseverance. The experiment of mindfulness with breath, learning to concentrate on the present moment by observing one's thoughts, feelings, and body, helps understand and manage unfavorable responses (Hemmings, 2022). The experiment corresponds to the concept of walking meditation, which suggests that perseverance, recollection, and awareness while standing and walking are promoted by walking meditation (Phrakru Sumetpatumaphon, 2021). These findings have practical implications for managing stress and improving concentration in daily life, such as providing a structured approach to mindfulness and concentration practices that can be incorporated into daily routines. In the study by Jayaraj et al. (2021), the use of binaural beats theory for sound design has been found to be effective in promoting relaxation and reducing anxiety. The most effective rhythm identified is a singing bowl beat mixed with the sound of the breath, with an equal ratio of 5.5 seconds of inhalation and 5.5 seconds of exhalation (Nestor, 2021). Creating a room atmosphere with dim orange lighting, similar to evening light, has been shown to promote serenity and inner peace, which aligns with the findings of Phungkate (2019). The study also suggests dividing the room into gloomy and light zones to create an environment conducive to individual desires for mental tranquility and concentration. This concept is akin to the idea of peaceful places, or "Sappāya" in Buddhist terms, such as pavilions, viharas, and temples (SomdetPhraYanawachirodom, 2016). For the study, a temple, Wat Chiang Chom, in Chiang Mai Province, Thailand, was chosen as the designated location.

The third room aims to evoke sensations using Dhamma, mindfulness, concentration, and wisdom principles. The design challenges participants to exercise mental control and concentration. A brain scanner (MUSE: EEG) is used to encourage determination and effort in achieving concentration. This device is beneficial for practicing meditation (Hunkin, L. King, & T. Zajac, 2021)

Figure 5 The atmosphere of "Let's Take a Breath" Exhibition and room number1, 2, and 3 (from the left)

The findings of the third research objective show that using psychological therapy techniques and applying Buddhist principles to create creative media design process had a positive impact on the students' mental well-being. This was because the students received high-quality information about the benefits of deep breathing, which further motivated their self-improvement. After practicing deep breathing and using the MUSE application to evaluate their brain waves when feeling calm, students learned how to initially control a calm mind. Additionally, students who had prior experience with meditation found it easier to develop a calm and eventually empty mind. The outcome of this creative design process can guide students towards building a resilient mind through a positive experience. Similarly, the study by Gadetragoon et al. (2022) and the recommendations of Phramaha Ponkit Bhuripanna and Klomkul (2018) have practical implications for helping teenagers appreciate life. The design for the first room revealed that the most influential factors on adolescents' resilience were the words of others and wise reflection (Phophichit, Phramaha Hansa Dhamahaso, & Ruksat, 2019). Role models' presentations enabled participants to access and visualize the potential benefits of breathing exercises for enhancing their quality of life. Similarly, the Buddha was a role model who achieved self-development through the principles of moderate practice (Hankitrung, 2016). The underlying reason was that faith was a factor that affected interest and led to knowledge (Phramaha Ponkit Bhuripanno & Klomkul, 2018).

The results from the second room showed that the participants, who were actively engaged in the study, found it easy to engage in walking meditation while listening to sounds for 10 minutes. This activity led to self-exploration and inner calmness through focused breathing. The participants' behavior was observed to change as they practiced self-regulation, demonstrating their adaptability in different situations, which positively impacted their expression. According to individuals who believe in their capabilities exhibit perseverance and are less likely to be discouraged. Additionally, creating a tranquil and softly lit environment affected external factors, enhancing awareness of breathing and self-awareness and increasing motivation (Kleinman, 2022).

The third room design study, which was similar to the findings of Phrakru Sumetpatumaphon (2021), uniquely applied the Four Elements to consider inhalation and exhalation. This approach helped participants understand that all things were simply forms

unrelated to oneself. The study found that the video content induced a sense of serenity among the participants. The visual images of nature, such as earth, water, wind, and fire, represented calmness, which people could relate to based on past experiences. According to Karl Rogers' theory, people become more aware of things that relate to themselves. Building a resilient mind requires a stable and balanced visual and emotional presentation (Phophichit, Phramaha Hansa Dhamahaso, & Ruksat, 2019). Additionally, providing participants with a brain scanner to wear while viewing the movies was a strategy that allowed them to practice being still, avoiding contemplation, and living in the present moment. The video content was edited to follow a 5.5 rhythm, corresponding to the human breathing system, ensuring that the body's functioning was not disturbed while watching the movies.

Body of Knowledges

This research is an interactive creative media design process of breath awareness for enhancing a resilient mind, based on the experience of visiting the “Let’s Take a Breath” Exhibition. The process began with registration, a thinking process, breathing practice, and feel emptiness, and was followed by a review process that included in-depth interviews, questionnaires, and Resilience Quotient forms (before and after), as shown in Figure 6.

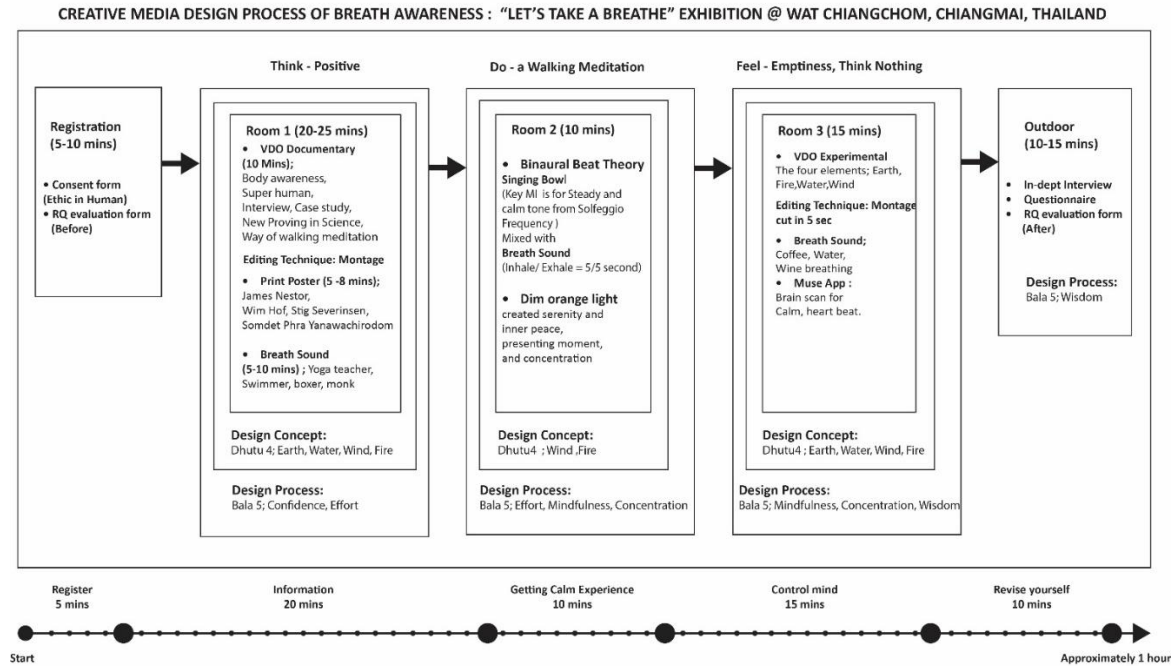

Figure 6 The overview of new knowledge from the "Let's Take a Breath" Exhibition.

Recommendations

1. Implementation of the research results

Based on the findings of the first research objective, the study has shown that the most effective media for promoting learning about achieving peace of mind featured nature

in blue, green, and white tones and lasted a maximum of 15 minutes. The most effective learning style from this media was learning from experience.

The second research objective revealed that using the principles of the Four Elements in designing media for various rooms created breath awareness, promoted faith, and motivated students to recognize the benefits of meditation for life quality, especially for mental health. Implementing this can benefit institutes and organizations in various ways.

The results of the third objective showed that combining the Five Powers and cognitive and behavioural therapy in the design process of breath awareness through creative media significantly increased the students' resilience within a short period. However, the study did not cover integrative research that can produce long-term behavioural changes or mental resilience. This method may contribute to effective self-development and result in a society with higher mental quality.

2. Recommendations for future research

The focus of future research should be on developing mental strength in different areas, including perseverance in overcoming challenges, finding strength in failure, and overcoming obstacles. These research directions hold the potential to significantly enhance our understanding of mental resilience and its practical applications. Additionally, the study of mental resilience should be expanded to explore long-term outcomes. Gathering information from a larger sample would improve the reliability and dependability of the results, making them more widely applicable.

Subsequent research, with the invaluable input of experts like you, could investigate the application of principles from Buddhist psychology to enhance mental well-being and fortitude, as well as the integration of creative media as tools for therapy.

Moreover, the narrow focus of the research might restrict the applicability of the findings to broader contexts. Therefore, it would be advantageous to replicate this study with larger and more diverse groups to increase its generalizability and reliability, and to examine the long-term effects of creative media treatment, such as art therapy, music therapy, or digital storytelling, on students' mental resilience. A longitudinal study could offer more comprehensive insights.

This research targets students from RMUTL's Faculty of Arts and Architecture, which may limit its scope. Hence, future studies should encompass participants from other faculties or universities to ensure greater diversity, potentially leading to more robust results. This inclusivity is crucial for a comprehensive understanding of mental resilience. A control group that has not been exposed to the media should be utilized for comparison purposes.

Further enhancements such as integrating methodology and data analysis, conducting interviews or discussions with trained psychologists, and undertaking an in-depth exploration of the reasons why some students did not experience an increase in resilience could provide a deeper understanding of the effectiveness of creative media in promoting mindfulness and

mental strength. Additionally, future research could involve experimenting with different types of media, such as virtual reality or interactive media, to determine their effectiveness.

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