# Model of Development of Learning Activities to Promote Mental Health among the Older Adults at Senior Citizens School

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## Abstract

This research aimed to develop learning activities in drawing and painting to promote mental health among older adults and to study the results and the satisfaction of the older adults towards learning activities in drawing and painting. The qualitative and quantitative research methods were conducted. The samples consisted of 200 older people, who were members of the senior citizens school in the community, as well as 12 school administrators and related staff who were involved with the activities designed. Quantitative data were analyzed using frequency and percentage, and qualitative data were analyzed by using content analysis. The findings revealed that the process of designing learning activities included three main activities: 1) preparing before learning through hand massage; 2) drawing by using exercise sheets and 3) painting or coloring on designed sheets. The observation results showed most of the older adults showed confidence in drawing and painting, and most of the highest level (97%). The experience of learning from the activities indicated that they were happy with the designed learning activities. The outcomes of the designed learning activities support the older adults in terms of potential, value awareness, and self-efficacy.

Keywords: learning activities, lifelong learning, mental health promotion, older adults, senior citizens school

## 1. Introduction

Several countries around the world face the phenomenon of an increasingly aging population. According to the United Nations' estimate, by 2050, one in six people will be an older person, which is estimated to be 1.5 billion in that year. The continents with the highest aging population are East Asia and Southeast Asia. Thailand is one of the countries in Southeast Asia where the aging population is in line with global population trends. It is also estimated that the number of older people will increase to 29.6% compared to the country's total population by 2050. Thailand is the sixth-ranking country in the world with an increase in the proportion of people aged 65 and over, and this assessment is between 2019 and 2050 (UNDESA, 2019).

The country's transformation into an aging society is a challenge faced by many sectors, especially public administration, which must prepare the country to cope with such changes. As the number of older adults increases, health expenditures will rise significantly because older adults face changes in all aspects, such as deteriorating physical changes. As a result, older adults have to cope with various diseases, especially chronic non-communicable diseases and disabilities (Prince et al., 2015). Mood changes among older adults may affect their mental health (Chen et al., 2017). This also includes the fact that older adults face rapid social changes and advancements in science and technology, as well as difficult times caused by the impact of COVID-19 (Milana et al., 2021). This affects the lives of older adults, who are considered a vulnerable group, especially those with health problems. They are at high risk of contracting COVID-19 and have a higher risk of severe illnesses than other groups. It has also been found that mental health problems, such as anxiety and depression, are more

prevalent among older people during the COVID-19 pandemic (Kumar & Nayar, 2020; Soonthornchaiya, 2020). Due to the increasing number of older people, their resulting health problems, the dependency ratio of older adults, and changes in social and economic conditions affecting the livelihoods of older Thai adults, government policy has, therefore, given more importance to older adults in Thailand. This can be seen from the details of the National Elderly Plan (2002-2021). First Revision, 2009, which highlights plans to improve the quality of life, promote the welfare and the value of older adults so that they can have good health and quality of life. Regarding the government's policy to promote the quality of life of older adults, senior citizens schools have been set up to promote access to lifelong learning processes, enhance health, and promote the potential of older adults. Driving the operation of senior citizens schools and implementing activities contained in the senior citizens school curriculum are processes that help older adults achieve lifelong learning, get the information and news necessary for life, and promote knowledge in areas such as health promotion and prevention, self-care and general knowledge, knowledge of the law, and knowledge of information technology that are necessary for older adults. It is an opportunity for older adults to interact with the community and society, develop skills for improving their quality of life, and exchange life experiences and wisdom. In addition to promoting knowledge, it also helps encourage older adults to have a good attitude toward aging, have a good relationship with other people, and encourage them to recognize their values and skills to adapt to changing society and contexts (Wudhiwanich et al., 2020).

Art like drawing and painting is one of the recreational activities that help strengthen older adults to have good health, especially good mental health, such as emotional, intellectual, and social aspects (Glozman & Naumova, 2014; Hunt et al., 2018; Ilali et al., 2019). Drawing, painting, and calligraphy are activities that older adults can do alone or in a group with people who share the same interest (Rupavijetra et al., 2018) for entertainment and happiness. It has also been found that it can be used as an activity to reduce depressive symptoms in older adults (Ilali et al., 2019) and to help them develop their brains for creativity, work with concentration, and to help calm their minds (Huhtinen-Hild én, 2014). Health promotion using drawing and painting among older adults may be conducted in a variety of groups such as older adults who can help themselves easily or older adults who can help themselves at a certain level. For the latter group, they may not like to participate in social activities due to health problems or low self-help abilities. Therefore, drawing and painting activities may promote emotional relaxation, which helps older adults to have a cheerful mind, train their brains, and strengthen their spirits by using art to restore their mental state. This will benefit older adults by having activities that help them use their free time meaningfully. The benefits of drawing and painting promote health and happiness (Hunt et al., 2018).

Using drawing and painting, however, to design an activity for older adults, especially in senior citizens schools in Thailand, is still relatively rare, especially in terms of learning through recreational activities with appropriate principles, methods, and techniques for older adults who are beginning to learn or are illiterate. This is to promote confidence while doing drawing and painting activities so that older adults can practice on their own at home. The use of art therapy in the care of older adults is becoming more popular (Baljay et al., 2018.).

For this reason, researchers who are the trainers for this senior school are interested in developing drawing and painting activities to promote mental health among older adults at a senior citizens school in the community of Chiang Mai province. From experiences of collaboration by conducting the training programs for older adults in this senior citizens school for years, found that the training programs focused on physical health, nutrition, listening to the monk's prayer and teaching, craft making, and music, but no learning activities using drawing and painting. When conducting the training programs, we found that fewer older adults took notes or had pens or pencils, most of them had elementary school backgrounds and thought they were illiterate, and they seldom wrote. The developed activities can be used to help older adults have good mental health, promote self-development and potential, empower their value awareness and ability, especially to write and draw, and have positive perspectives on themselves through the developed activities. This will also help older adults to continue doing the activities on their own at home or with children in the family or community as appropriate. In this research, the researchers realized and focused on the nature of older adults learning that is different from that of other ages. In the teaching and learning process, we focused on the Andragogy approach of Knowles (1980). The designed activities will be meaningful and useful to the older adults' lives.

## 2. Literature Review

The researchers studied and analyzed articles, documents, and related research on the development of learning activities to promote the mental health of older adults at a senior citizens school in the community as follows:

## 2.1 Learning of Older Adults

Education is an important factor for cultural cultivation in society that is transferred through concepts, beliefs,

social values, and ideology that most people in society accept as right and appropriate. Education, therefore, is the important mechanism for providing knowledge for citizens in each country which establishes social attitudes, habits, way of life, and behaviors of people in society and reflects the similarity of the model of thinking or character for social behavior (Nanthawong et al., 2021). As the proportion of older adults increases sharply, there are new demands on the welfare system, especially on social services and education for older adults. Participating in education is another context that leads older adults to return to social activities like other generations, and it also leads to building new experiences after retirement to have a meaningful daily life and a sense of dignity again (Hedegaard & Hugo, 2020). However, the world of learning, nowadays, has changed, and is increasingly using technology for learning is an added factor that is related to the problems and obstacles of learning, which are limited among older adults. Especially, there is a decreasing work efficiency that is related to aging, for instance, slow movement, decreased senses and perception, impaired vision and hearing impairment including problems of financial status. To promote learning for older adults, emphasis is needed on developing the basic skills for information technology to support older adults gain the ability to use smartphones or computers and make self-adjustments for online learning. These skills are useful for older adults if they integrate traditional and online learning, which are used widely in contemporary society (Martinez-Alcala et al., 2018). People in society today must be digitally literate and must have these skills for using data for daily life (Kaeophanuek et al., 2018).

Many older adults have open minds about becoming digital citizens. However, they face the obstacle of using technology and following radical technological advances (Yoo, 2020). To develop skills that support the learning of older adults to use information technology, problem-based learning should be used as well as studying their needs regarding information technology, as well as providing advice and promoting collaborative learning, because problem-solving techniques are important for increasing the quality of life of older adults in the modern world (Grynova et al., 2020). Knowles (1980) pointed out the learning of adults is different from other ages by definition the Andragogy term, is the art and science that support adults to learn. It means that adults will be interested in the topic that they could learn and implement in their lives. They learn from their experiences and self-directed learning style. The teacher or instructor should be a facilitator of their learning. The objectives of adult learning are not for scoring but their living.

## 2.2 Health Promotion for Older Adults

Advances in the development of science and technology, medicine and health, food and nutrition are useful for the body and mind in that they particularly lead to increases in life expectancy. However, an aging society creates social problems in the twenty-first century, impacting the social stability and security of the population as well as the social and economic development and health services for older adults (Florescu & Florescu, 2020). When human beings become older adults, changes in their physical and mental condition happen naturally. These changes affect their living situation, especially their physical health, brain system, nervous system, memory, thinking, and decision-making, including their role and duty and social participation, which decrease. Indeed, this situation directly affects their mental health; many older adults lose confidence and some of them feel depressed (Sungsri, 2021).

In Japan, the government and private sectors have paid great attention to promoting the health of older adults, establishing smart technologies for supporting older adults to promote good health and advising older adults in daily life safety via data collection, including learning mechanisms with smart technology (Takahara et al., 2018). Artificial intelligence (AI) is the smart technology that is not only used to support learning, but also to create interactions with human beings based on the differences in learning models of each person. In addition, it can be used for analyzing behavior and promoting the efficiency of living and good health of older adults (Chaiyarak & Wannapiroon, 2020). Promoting the health of older adults is generally based on the following three basic goals: 1) to treat and increase their ability to work; 2) to improve self-competence and 3) to encourage older adults to undertake social participation. These goals aim to support older adults to have a quality of life and to be independent and self-reliant. To achieve these goals, health promotion activities are emphasized older adults' social participation in the community (Golinowska et al., 2016).

## 2.3 Senior Citizens School

Most senior citizens schools in Thailand are managed in the form of learning schools/colleges in communities. Learning activities are designed in the meeting rooms of the communities and public libraries or the private residences of senior members. Learning activities for older adults are mostly conducted using integrated learning styles, aiming to provide activities for individuals' needs and groups' needs, with an emphasis on interaction among older adults. There are various styles of learning, for instance, online learning, face-to-face participation,

classic dancing, folk dance, artwork, exercise, and other recreations, including ad hoc meetings for sharing data or thoughts (Ratana-Ubol & Richards, 2016). Senior citizens schools are established about the government's policy to promote good quality of life for older adults. The senior citizen's schools also provide for lifelong learning and promote good health among older adults supporting the potential of older adults (Wudhiwanich et al., 2020). It is very important to promote and support older adults to return to school. This action can encourage older adults to realize that younger generations are still concerned about them. Activities designed for older adults' learning not only assist social interaction among older adults but also help restore older adults' skills. In addition, older adults can transfer their wisdom through exchange with new generations (Ball, 2019). Moreover, the benefits of studying among older adults at the senior citizens schools can motivate brain development by thinking and adjusting to social changes, science, and advanced technology (Pihlainen et al., 2021). It is true that many older adults after retiring from working remain healthy and are willing to work if they could receive the opportunities. Therefore, activities at senior citizens schools may set the styles of learning by sharing older people's experiences and knowledge (Goldstein, 2018).

## 2.4 Lifelong Learning

The concept of lifelong learning, i.e., that 'knowledge is endless to learn', has become deeply rooted in the lives of older adults, and is a means to respond to the effects of an increasingly aging population. Many educational institutions have provided resources and learning centers for older adults, to provide opportunities for older adults to learn what they are interested in and expand this learning beyond the classroom. The concepts and implementation of lifelong learning have led to the creation of new styles of learning for all. The important components for these concepts and practices are as follows: 1) the changes in population structure and increasing population of older adults; 2) the policy formulation on education for older adults that emphasizes the efficiency of learning; 3) the promotion and collaboration among many educational institutions on establishing learning of older adults; 4) the basic theory of learning programs designed to assist older adults to navigate aging meaningfully, being alert, awake and needing to return to school and education for older adults in communities (Lee, 2015).

Lifelong learning is important nowadays. Lifelong learning is an important target for supporting the learning of human beings in the twenty-first century because learners can increase their knowledge and ability for self-directed learning throughout their whole lives (Andres et al., 2021). Lifelong learning styles are different based on gender, generation, and economic and social status (Öteles, 2020). In addition, lifelong learning can increase the opportunities for learners who have strong intentions to receive data in real-time to handle rapid changes (Salleh et al., 2019). Lifelong education for older adults is a contemporary and important policy in many countries that aims to succeed. In particular, developed countries have designed educational curricula and learning for older adults to respond to the policy of lifelong learning for all ages (Richards, 2019).

To study the management of lifelong learning for older adults, we found that many programs were designed based on differences between older adults who are dependent and independent older adults; this classification assists curriculum managers who design the learning model and facilities appropriately, using the internet and other learning resources based on recreation and integrating content from documents and books which assist and support the lifelong learning of older adults efficiently (Ratana-Ubol & Richards, 2016).

## 2.5 Art Drawing and Painting for Older Adults

Art drawing and painting is a recreational activity that promotes good health among older adults, particularly in terms of mental health, emotions, and social intelligence (Glozman & Naumova, 2014; Hunt et al., 2018; Ilali et al., 2019). Drawing and painting or writing with a paintbrush can be done by older adults either as an individual or as a group (Rupavijetra et al., 2018) to create entertainment and feelings of satisfaction and happiness. In addition, this activity can be used to reduce depression among older adults (Ilali et al., 2019), It can also be used for brain development, aiming to build creative thinking, concentration, and calm (Huhtinen-Hild én, 2014). Organizing the drawing and painting activity in a fun atmosphere will assist older adults to learn better and be happy; therefore, before managing the activity, trainers should have a strategy and plan to design an interesting learning activity and select the appropriate methods to motivate learners which emphasize the interaction and participation of learners. In addition, the trainers should focus on multiple activities that aim to support active learning. For the learning evaluation of this activity, trainers should select a formative assessment and create a good, lively atmosphere to support learners' learning with happiness and enjoyment (Koednet et al., 2021). Art drawing and painting can assist older adults to experience emotional relaxation, have a cheerful mind, develop brain training and cheer up. These activities also assist in mental rehabilitation, thus it is good for older adults to do this activity in their spare time (Hunt et al., 2018).

Although there are benefits from drawing and painting activities for good health promotion and creating happiness for older adults, the application of these activities for older adults who study at senior citizens schools is still not widely practiced. This is particularly true for learning management through recreation activities that have principles, methods, and appropriate techniques for older adults, who are either returning to education or are illiterate, to support their confidence while practicing such activities, including doing them at home. Using art activities for art therapy among older adults is increasingly popular (Baljay et al., 2018).

Therefore, research teams are interested in developing learning activities in drawing and painting to promote mental health among the older adults at senior citizens schools in the community in Chiang Mai province. These activities were designed and developed to support good mental health among older adults, as well as self-development, potential growth, realizing the value of one's abilities, and having a positive outlook on one's self through designed activities. In particular, older adults could do these activities in their homes or collaborate with family members or in the community on the appropriate occasions.

## 3. Objectives

1) To develop learning activities in drawing and painting to promote good mental health among older adults in a senior citizens school.

2) To study the results and the satisfaction of the older adults towards learning activities in drawing and painting to promote good mental health among the older adults in a senior citizens school.

## 4. Scope of the Study

The scope of this study was determined by the population: 246 senior citizens, aged 60 years and over, both males and females, enrolled as students at a senior citizen school in Chiang Mai, Thailand. The reason for choosing this school as the scope of research area was because this senior citizens school is recognized as a model for other senior citizens schools in the area. This school has continued to provide education to enhance the quality of life of older adults and several older people have been interested in participating in the school activities since 2013. And also, the researchers had made the MOU with the school for supporting the activities of this school since 2017.

The samples consisted of 200 older people who were members of the school, who attended school regularly, and who were willing to participate in both designed activities, as well as 12 school administrators, and related staff who designed the activities for the older adults, such as representatives of older adult learners, community leaders, the president of senior citizens' club, subdistrict municipality administrators, senior citizens school administrators, and subdistrict health promotion school staff. Purposive sampling was used to select the samples. Learning activities were organized for the older adults in the community's senior citizens school from June to August 2020.

## 5. Method

This research focuses on learning activities in drawing and painting to promote the good mental health of older adults in a senior citizens school that relied on the Andragogy approach of Knowles (1980). The purpose of using this research approach was to develop learning and teaching activities by creating recreational activities to promote the good mental health of older adults and to help them take up the activities in their free time. The research process consisted of collecting quantitative and qualitative data consisting of four steps (Altrichter et al., 2002) as follows:

## 5.1 Planning

This process analyzed current conditions, which included documents, related research and problems, evaluation of activities held in the senior citizens schools using a community involvement process, and attending meetings to listen to opinions, as well as the needs of the older adult learners that relied on the Andragogy approach of Knowles (1980). Then, activities were planned for learning drawing and painting to promote the good mental health of the older adults in the school by providing feedback from the community and learners. There were 12 informants giving information via a focus group discussion process. After receiving the inputs, the research team drafted activities that were appropriate for the duration and needs of the learners. For the activities designed, the research team studied information about basic drawing, line drawing, and drawing from documents and books, as well as research related to drawing, including hand and arm muscle exercises for older adults. We hold the meeting with the team and assistant students who will support us during the activities. Focusing on teaching older adults that we have to pay to respect them, the objective of teaching is to support them to be happy, have fun, and have a good relationship with others.

The activities were detailed as follows.

# 5.1.1 Preparing

This was the preparation process, before learning activities, which took 30 minutes. The trainers greeted the older adults and asked for cooperation in dividing them into groups according to their satisfaction: there were at least 10 people per group. Tables and chairs for drawing and painting were prepared which allowed the older adults to sit comfortably. Before the activities, the trainers distributed equipment to the older adults, including a 2B pencil, an eraser, and a set of colored pencils for painting, basic line drawing, and pattern drawing exercises. The trainers gave an orientation for the older adults who attended drawing and painting classes to explain the importance of drawing, including its benefits and principles of drawing for older adults. The trainers prepared the readiness of the participants' bodies, hands, fingers, arms, and sitting positions. A teaching video was played and used to show as an example. The trainers let the older adults sit with their shoulders straight and raise both arms close to the body. Both hands were spread wide; it was a physical exercise before doing activities to relax the body's tension with details as follows:

1) The first exercise was a hand exercise for older adults. They had to clench their fists and release their fingers to flick out and count 1 and 2, 20 times at the same time, rhythmically.

2) The second exercise was a palm massage by raising both palms to chest level. They had to lift the right hand and left the thumb of the right hand by clenching the rest of the fingers and using the right thumb to massage and press the left palm in a clockwise circular motion, counting 1-10, and then press it back, counting **10-1**, alternating with the other hand. If they could not do it comfortably, other fingers of the right hand could be used to support the left palm during the massage, and then alternated on both palms.

3) The third exercise was an arm exercise. This was done by raising both arms to one's chest level, clenching fists, counting 1-10, then contracting the arms to the chest, counting 1-10, then stretching out the arms with fists counting 1-10 for about 2 sets.

## 5.1.2 Drawing

This step was the first activity to use basic drawing exercises and simple drawing patterns; all exercises included five pages, starting with 13 basic drawing exercises and simple drawing patterns. In the first stage, the older adults had to draw each line along with the patch until it was complete and then draw it themselves in a long stroke, without raising their hands or stopping, allowing them to draw until they were good at it. After that, they had to learn to draw other lines slowly, to concentrate, and to draw according to a simple pattern in a characteristic geometric shape. During the activity, it was emphasized that there would be no drawing competition in terms of speed; rather, the competition focused on the beauty when one could draw along the patch made as a guideline. The older adults could add other lines as they wished.

## 5.1.3 Painting

This step was the second activity to use two sets of picture-based coloring exercises for the older adults. The pictures typically featured different characteristics of flowers and different species of birds so that the older adults could choose colors according to their imaginations under different artistic experiences. The focus was on the older adults coloring according to their aptitude or using realistic colors for their satisfaction; there was no right or wrong judgment.

## 5.1.4 Determining

This step was the time frame of an activity divided into two sessions; each session took three hours. The total duration of the designed activities was six hours. The first time focused on basic line drawing activities and drawing activities according to patterns. The second time focused on coloring activities. Before doing each activity, the researchers prepared them for each lesson, taking around 30 minutes to prepare before each activity.

# 5.1.5 Monitoring

This step was an activity review conducted after the exercise design. The researchers handed the activity plan in the pre-learning preparation process, basic line drawing and pattern drawing exercises, to three experts in art teaching and training for older adults to examine. After that, the researchers applied the recommendations to improve the exercises based on the principles of drawing and organizing activities for older adults.

## 5.2 Acting

These were the steps to perform the learning activities. The research team carried out the designed activities by setting the steps of the activities and the staff responsible for the planned activities.

# 5.3 Observing

This was the process of observing the learning. The research team collected data on the results of the learning activities in drawing and painting to promote good mental health among the older adults in a senior citizens school. Data were collected and saved, and the research team also observed the older adult learners' behaviors during the learning.

## 5.4 Reflecting

This step was to reflect on the results of the learning activities. The research team collected the lessons learned and reflected on the learning outcomes from 17 older adults through interviewing their experiences of participating in the learning activities in drawing and painting to promote good mental health among the older adults at the school.

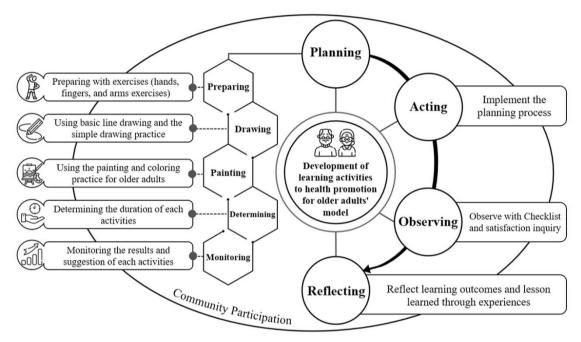


Figure 1. Development of learning activities for health promotion for older adults' model

## 6. Data Collection

Research tools used in this study were divided into two parts: quantitative data collection and qualitative data collection. The quantitative data collection tools were as follows: 1) A behavioral observation form on the older adult learners during the study took the form of a checklist with two answers to choose from: pass and fail. Observational details covered the issues of the following: (a) cooperation in activities, (b) assertiveness, and (c) happiness of participation in the activities. 2) An overall questionnaire on the satisfaction of the older adults regarding the learning activities in drawing and painting included a scale to estimate the satisfaction, ranging across five levels: lowest, low, moderate, high, and highest.

## 6.1 Qualitative Data Collection Tools

The qualitative data collection tools were as follows:

1) A questionnaire form was used in 2 group discussions which consists of 6 people in each group. The participants have included school administrators, related to the staff who designed the activities for the older adults, such as 3 representatives of older adult learners, 2 community leaders, the president of the senior citizens' club, the subdistrict municipality administrator, 4 senior citizen school administrators, and the one of subdistrict health promotion school staff to study the need for organizing drawing and painting learning activities to promote good mental health among older adults in a senior citizens school. It was used in the planning phase of the study in a semi-structured interview style. Example questions were as follows: Would you like to organize a learning activity in drawing and painting to promote good mental health among older adults in a senior citizens school? Why do you think this? What should the nature of the activity consist of? During the interview, the researchers used probing questions as follows: Can you explain more? Can you give an example of this point?

2) A semi-structured interview was also used to learn about the older adults' experiences of the learning activities in drawing and painting to promote good mental health. Additionally, the interview guide questions focused on how satisfied participants were with the designed activities. Example questions were as follows: How did you feel when you took art classes in drawing and painting? Do you feel the benefits of participating in these learning activities for your health or your body? How? During the interview, the researcher used probing questions as follows: Can you explain more? Can you give an example of this point?

## 6.2 Data Analysis

Quantitative data were analyzed using descriptive statistics: number and percentage. Qualitative data were analyzed using content analysis.

#### 6.3 Ethical Considerations

This study was approved by the Research Ethics Committee of Boromarajonani College of Nursing, Chiang Mai, Document Code No. BCNCT19/2020. The research team took human research ethics into account by asking permission from research participants when collecting data and making appointments at times that were convenient for research participants. The research team explained the research objectives, processes, and related information along with the consent letter to participate in the research for the participants to sign. Participants could refuse or withdraw their consent at any time, and this did not affect their participation in school activities for older adults. There were no detrimental effects on the participants in this study. The results of the study were disclosed only after the research. The research team did not disclose the names or surnames of the research participants.

#### 7. Results

The results of the analysis to assess the need for drawing and painting learning activities to promote good mental health among older adults in a senior citizens school in the community showed that the representatives involved such as older adult learners, community leaders, the president of the older adults' club, sub-district municipality administrators, senior citizen school administrators, and sub-district health promotion school staff are interested in, strongly agree with and support the addition of such activities in the curriculum. The school does not have a clear activity plan of recreational events concerning the use of arts for mental health promotion in the senior citizen school in the community: most of the activities organized in schools are mainly aimed at creating happiness for older adults such as listening to the monk prayer, singing, playing sports and games. When asked about the types of activities that should be offered to relieve stress, the older people found that they did not feel pressured while doing the activities; they were easy-to-understand activities that could be applied or are practical when the older adults are at home, where some of them live alone. They may be able to use such activities to enjoy themselves in their free time or they could do the activities with school-aged children in their families. Drawing and painting not only support good mental health or concentration but also support hand and fingers muscle movement. For the activities, the research found that a large number of older people rarely hold a pen or pencil for writing at home. Some of them had trigger fingers. However, after finishing these activities, the researchers had to conduct the other activities following the schedule of the school and found that a large number of older adults had pens or pencils in the handbags provided by the school for taking notes, and they requested more times for learning the drawing and painting activities.

The results of the development and design of learning activities in drawing and painting to promote good mental health of older adults in a senior citizens school in the community can be described in three main activities:

Activity 1: Preparation, which takes 30 minutes. The form of body preparation included physical postures to exercise hands, fingers, and arms, including a sitting position that is appropriate to the activity and the older adults. At this stage, it was an activity for the older adults to practice before entering the 2nd and 3rd activities. Activity 2: Drawing using 13 basic lines and pattern drawing exercises. There were five pages of exercises to encourage concentration. The process of simple pattern drawing started from geometric pictures. During the activity, the team of instructors-built confidence gave compliments, and encouraged the older adults to use their potential in drawing and painting. Activity 3: Painting using two sets of picture-based coloring exercises for older adults created by the research team under the supervision of experts in activities for older adults and art teachers. Older adult learners could freely design the use of colors according to their imagination and needs without judgment.

The activities observation results by a team of researchers and student assistants to support the older adults in each group (15 groups) during participation in the learning activity of drawing and painting to promote good mental health among the older adults in the community's senior citizen school showed that in terms of line

drawing, most of the older adults cooperated. Counting found that only 4 older adults could not hold the pencils properly as they hurt their fingers and they could not finish the tasks but they would like to participate in the activity.

During the teaching and learning activities, most of the participants showed assertiveness and courage by raising their hands to show the pictures they drew to the speakers, and most of the participants had fun during the activities. Only 4 old adults could not do the exercise properly and their hands and fingers hurt. But they observe other friends and smiled and were interested in the activities, they told the researchers what they will do at home, or let their fingers will be better.

For the observation results during the painting activity, the second time of the activities, most of the participants cooperated during the activity, and all older adults showed assertiveness by asking and choosing the desired color for painting according to their imagination. Moreover, most of the participants had fun chatting during the activities by showing off their work to their classmates.

The results of the questionnaire on the satisfaction of the older adults who participated in drawing and painting learning activities revealed that 97% of the older adults had the highest level of satisfaction and 3% at a high level (Table 1.)

Items	The level of satisfaction with the designed activities	Amount (N=200)	Percentage
The overall satisfaction with the activities	Highest	194	97.0
	High	6	3.0
The preparation before drawing	Highest	198	99.0
	High	2	1.0
The lines drawing exercises	Highest	198	99.0
	High	2	1.0
The picture-designed drawing	Highest	180	90.0
	High	5	2.5
	Moderate	15	7.5
The pictures painting	Highest	199	99.5
	High	1	0.5

Table 1. Results of older people's satisfaction on the designed activities

The results of a study of learning experiences in drawing and painting to promote mental health among older adults in the senior citizens school in the community showed that the older adult learners were happy to learn. Most of them could finish drawing lines in time, while some could not draw as they had never done it before; they lacked confidence; they did not hold a pen or pencil in everyday life or were embarrassed while drawing and kept erasing the pictures all the time, causing the drawing to be unfinished. Some pictures were far smaller or larger than the sample and some of the older adults were embarrassed. Through the teaching process, the trainers gave advice and encouragement. Consequently, the older adults who could not draw pictures were finally able to draw according to the activities. This was to encourage the older adults to have confidence in themselves and believe in their potential. Some older adult learners commented as follows:

"I had a lot of fun; I never drew like this when I was a child" (3<sup>rd</sup> informant)

"I love it so much that I would like to practice it myself at home. It would be great if someone gave me some colored pencils." (6<sup>th</sup> informant)

"Please come and organize it every month. It's fun and I always wanted to draw for a long time. I can't do it myself and there is no one to teach me."  $(10^{th} \text{ informant})$ 

"I didn't go to school when I was a child. I stopped holding pens and pencils a long time ago. I couldn't write well anymore. But when I got to hold the pencil that the teacher taught today, I was so happy that I could learn to write the Thai alphabet and draw some pictures. Please give me another set of exercises." (1<sup>st</sup> informant)

In addition to the issue of happiness when learning, the older adults also reflected their concentration and good mood during the activities, as illustrated through the information given by the participants as follows:

"I'm so glad that I took this course because it made me concentrate on doing the exercises. I hold a pencil better."  $(12^{th} \text{ informant})$ 

"I think my finger, which was hard to bend because I didn't use a pencil for a long time, can now move freely.

The teacher taught very well how to exercise hands and fingers; I do it at home every day." (5<sup>th</sup> informant)

"I like this subject. It makes me concentrate and have fun coloring pictures. It makes me feel like going back to be a student again." (7<sup>th</sup> informant)

"I took the picture home to show off to my grandchild, and he even asked me to teach how to draw the lines. That was fun." (2<sup>nd</sup> informant)

After teaching and learning the drawing and painting activities, the researchers had to conduct other activities following the schedule that was set in advance, like listening to the monk's prayer, body exercises, recreation by games, etc., the researchers found that most of older adults showed assertiveness and look note during training section (in the former timeless of them to take note, only listening) and many older adults requested more times about these designed drawing and painting activities.

## 8. Discussions

The development of drawing and painting learning activities to promote good mental health among older adults in a senior citizens school in the community proceeded with the activities step by step. The work was planned by taking the opinions and results of the participation of the people involved in the management of the school into account. This also allowed the older adult learners to plan and design activities, which was considered an opportunity for the community to get involved in thinking about and developing activities for older adults (Noguchi et al., 2015). The designed activities were suitable for teaching and learning in the older adults' target group. Activities were carried out by paying attention to the consistency of teaching and learning to promote lifelong learning for the older adults in line with the concepts of Ratana-Ubol and Richards (Ratana-Ubol & Richards, 2016) and focused on the Andragogy approach of Knowles (1980). For the teaching and learning processes, the research team prepared the plan. Teaching procedures included the study of the physical condition and psychology of the older adults, conducted by using simple art lessons for older adults that they were familiar with. The lessons also gave the older adult learners the freedom to sit with the group; after that, there were assessments from the older adult learners. There were also opportunities for the older adults to learn from each other (Davenport et al., 2020). It can be seen that the teaching and learning activities were based on the participation of related personnel and the integration of lifelong learning following the provisions of education under the Constitution of the Kingdom of Thailand B.E. 2560 (Wudhiwanich et al., 2020) and these were used for the development of activities. Such participatory development processes may contribute to a sustainable lifelong learning society (Areekul et al., 2015), and this is important for promoting good health and quality of life in Thailand, which is facing rapid growth in its aging population.

Drawing and painting activities were developed to promote the good mental health of the older adults in the senior citizens school by focusing on the use of creativity to help develop thinking, as well as techniques to deal with emotions and feelings. These findings are in line with the study of Glozman and Naumova (2014) which examines that art therapy has a positive effect on emotional health in older adults. The preparatory activities for the older adults, using finger and arm exercises, help the older adults to stretch joints and muscles, and improves physical flexibility (Chen et al., 2014), They also used finger movement exercises to improve hand muscle strength and self-care rehabilitation of the older adults. Drawing and painting are activities developed to promote good mental health. It was found that the participants in the activities reflected that it was an activity that made them happy, filled with entertainment and satisfaction (Johnson & Sullivan-Marx, 2006; Rose & Lonsdale, 2016).

Drawing and painting activities of this research could promote emotional relaxation, which supports older adults to have a cheerful mind, train their brains, and strengthen their spirits by using art to restore their mental state. This will benefit older adults by having activities that help them use their free time meaningfully. The benefits of drawing and painting promote health and happiness (Hunt et al., 2018).

In addition, the activities encouraged the older adults to be creative, concentrate, and feel calm (Reynolds, 2010). Using colors and arts had important effects on good mental health, such as enjoyment, fun, and satisfaction among older females (Huhtinen-Hildén, 2014), who stated that art-based activities helped them to be creative and have peace of mind.

The results of the study reflected the satisfaction of older adults towards participating in the activities, especially the feeling of happiness and fun which related to the study of Huang and team (Huang et al., 2002), on the health promotion education program for older adults in the community in Taiwan. It was found that at the end of the program, the older adults showed positive behaviors (Ford et al., 2018). The study of the development of drawing and painting learning activities to promote good mental health among older adults in a senior citizens

school encouraged the older adult learners, who were not familiar with drawing and rarely picked up a pen and pencil in everyday life, to start doing simple drawing activities until they became familiar and were able to paint and draw according to the patterns (Hunt et al., 2018). The activities focused on creating a fun atmosphere; there was no competition or emphasis on performance. Motivation and confidence were created to promote relationships between the learners and teachers, as well as among the learners themselves. This process is empowering for older adults, which will make them believe in themselves, and recognize their self-esteem (Kam, 1996).

#### 9. Conclusion

The model of learning activities for promoting good mental health among older adults in the senior citizens school in the community that the designed activities which relied on the Andragogy approach of Knowles (1980), especially for the older adults in this senior citizens school composed of four main steps: 1) Planning, which was composed of five sub-steps: preparing, drawing, painting, determining, and monitoring; 2) Acting; 3) Observing and 4) Reflecting. Each step and learning process were based on the participation of the community. The older adults had to practice three main activities; these were the first activity, the preparation in collaboration with the team of researchers, and participants with the researchers leading, explaining, and demonstrating methods: the appropriate time for this activity was about 20-30 minutes.

The preparation process took the form of body preparation, including physical postures to exercise hands, fingers, and arms, including sitting positions that are appropriate to the activity and older adults. The older adults practiced this before entering the second and third activities, sometimes using recreation to encourage interest and build a joyful atmosphere. The second activity was drawing using 13 basic lines and pattern drawing exercises; this started with simple pattern drawing from geometric pictures and did not exceed five pages to encourage concentration. The third activity was painting: they used two sets of picture-based coloring exercises for the older adults; they could freely design the use of colors according to their imagination and needs without judgment. The exercise sheets were created by the research team under the supervision of experts in activities, the researcher teams should observe learning activities and the participation of older adults closely. The reflection step should emphasize reinforcement, fun, and chatting during the activities through sharing their work with their classmates: this made the older adults happy and filled them with confidence, satisfaction, and happiness. The study found that the designed activities this study could support older adults in this senior citizens school to have good mental health, fun, creativity, and relationship with others during participating in the activities. They always requested more activities in the art course.

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