

Use of Design Thinking Process for Factors and Preparation Guideline of Being a Happy Elderly Person^{*}



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Abstract

This research article aims to study the factors that promote happy elderly lives from people working-age representatives. Moreover, to find ways in preparation for being a happy older person by applying design thinking activities as research tools.

The research revealed that affecting factors to be happy elderly lives in the future consisted of 6 factors: 1. Finance 2. Physical and mental health and attitude 3. Housing and occupation after retirement 4. Participation in a society with the people. 5. Knowledge 6. Time to prepare for planning to become an older person. Furthermore, 3 model guidelines for preparing to be a happy older person: 1. A model guideline for building an online learning network format, 2. A model guideline for building a community learning center, and 3. A model guideline promotion of financial planning and health insurance systems. These guidelines focus on the concept of the elderly and community applications. Meanwhile, these guidelines are a purpose for people of working age who will become aging. The researchers suggest that guidelines should be trialed in existing geriatric centers or communities to test and reduce deficiencies which will be reviewed and improved so that guidelines are ready to apply to people who will become aging in the future.

Keywords: Thinking Process; Preparation Guideline; Elderly Person

Introduction

The world's elderly population is growing at an alarming rate because of the declining birth rate, and people live longer. The United Nations (United Nations, 2021) estimates that in 2020, there will be approximately 727 million people aged 65 and older, representing 9.3 percentage of the global population. It is anticipated to reach 1.5 billion by 2050, representing 16 percentage of the global population. And it is said that the world has rapidly entered an aging society. As a result, to raise societal awareness and assist each country in anticipating the proportion of older people in the community to prepare various plans promptly, the United Nations has divided the levels of entry into an aging society into three levels, as follows:

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Level 1: The level of accessing an aging society (Aging Society) is a society with a population aged 60 years and older comprising at least 10 percentage of the total population or a population aged 65 years and older with at least 7 percentage of the total population.

Level 2: Aged Society is one in which the population aged 60 years and older exceeds 20 percentage of the total population or the population aged 65 years and older exceeds 14 percentage of the entire population.

Level 3: A super aged society is one in which the population aged 60 years and older exceeds 28 percentage of the total population, or the population aged 65 years and older exceeds 20 percentage of the total population.

For Thailand, elderly people aged 65 and above make up 13 percentage of the country's population (Department of Older Persons, 2018). According to Thailand's 2010-2040 Population Forecast Report, by 2024, Thailand will be an entirely aging society. With an aging population of over 14 percentage by 2032, the country will be an aging society with a senior population exceeding twenty percentage of the total population (Department of Older Persons, 2018).

According to the 2010-2040 Population Forecast Report of Thailand, by 2024, Thailand will be an entirely aging society. With an aging population of over 14 percentage by 2032, the country will be an aging society with a senior population exceeding twenty percentage of the total population (Office of the National Economic and Social Development Council, 2022). The current working-age-to-elderly ratio is 3.6:1, and it is predicted that in the next twenty years, the proportion of working-age to the elderly will be 1.8:1, a twofold reduction (Department of Older Persons, 2018). These statistics indicate that in the future, Thailand will face a labor or working-age population deficit, which will be the driving force of society.

Conversely, if people of today's working age are prepared to become older, they will be able to plan their lives and live in the present with purpose. Furthermore, this proper planning will factor them into active aging in the future, healthy as they age. They have economic stability and have a role in society that is conducive to the life of the elderly. These factors prompted the researchers to conclude that preparations for today's working age will impact society in the future. In other words, if working-age people are now well-prepared for retirement, they will be pleased as retirees. A healthy, self-reliant individual can also be a contributor to society. This will have a favorable effect on future prosperity and the economy.

Nevertheless, on the other hand, if the current working age lacks preparation, it will harm themselves and society in many ways. In addition, the researchers consider the time of preparation, such as happiness aspects in physical, mental, and financial health, to be an essential factor in becoming a happy older person. Learning how to plan, organize, and be consistent with their training takes time. Before members reach old age, networks, groups, and activities must be established to ensure their social engagement. This will reduce the elderly's sense of isolation and help them feel valued in society.

Department of Elderly Affairs Ministry of Social Development and Human Security (Department of Older Persons, 2022a) Said, "Old age is the final stage of human life development. Without early development and preparation, human imperfection will only accrue once the last age is old. Therefore, human beings should begin to prepare for aging from the womb and that preparation for aging should begin as early as possible. Or, at the latest, in late adulthood, between 40 - 59 years of age (Department of Older Persons, 2022b).

To examine the perspectives of today's working population on becoming a happy older adult and to determine how to prepare for aging, the researcher intended to investigate what it means to be a happy senior citizen a variables affecting being a happy senior in the future, together with a strategy for planning to be a happy elderly. The tools used in this study include organizing activities under the concept of Design Thinking, a process developed by IDEO, a well-known design company in the United States, and D. school or the institute of design of Stanford University which is an institute that teaches design using the design thinking (Kidjawan, 2018). This process aims to understand human beings and the actual users (Human Centric Design) and then create practical work resulting from design, planning, policy-making, service, or innovation, for 20 participants, aged between 30 - 59, who are of working age and in the age appropriate for preparing for the elderly.

Objective of the research

1. To study the factors that promote happy elderly lives from people of working-age representatives.
2. To propose the ways for preparing to be a happy elderly person by applying design thinking activities as research tools.

Research methodology

Data Collection

This study is separated into a literature review-based analysis of Thailand's elderly readiness situation an analyzing of the sample population in this research by defining age requirements between 30 and 59 years for Bangkok-area residents. The twenty volunteers who attended the design thinking workshop were randomly picked up the population groups.

Data Analysis and Synthesis

- 1) The general data of the activity results were analyzed from the participants' opinions in each activity phase.
- 2) The synthesis of knowledge was from conclusions and recommendations at each phase of the activity.

Research Tools

The Design Thinking process has been used as a research tool to study the factors affecting happiness in being a happy older person in the future a propose a model for

preparing to be a happy elderly person. Before beginning the design activity, the researcher arranged activities to help the volunteers understand their feelings and the needs of themselves and other volunteers and prepare them for the activity because volunteers had diverse vocations, ages, and thought backgrounds. Consequently, a psychologist was asked to lead a movement called Active Listening. Psychologists have participants practice understanding their emotions and needs in various settings and train them to notice their feelings at the moment and convey them to others so that they may be understood. This activity will introduce participants to interpreting genuine difficulties, being more discriminating in selecting solutions or meeting their demands and observing the tone of voice and facial expressions when listening to the perspectives of others.

The process then enters the design thinking phase. It involves five steps. Throughout the activity, the researcher conducted periodic analyses of the collected data when the researcher determined that additional information was required and needed iterating. Subjects who were previously acquainted with one another were separated into distinct groups. Following that, the subsequent steps are as follows:

1. Understanding the in-depth problem of the target audience (Empathize)

To comprehend the issue, it is necessary to understand the intended audience comprehensively. The Observe technique may consider the target audience, the individual engaged, the system, the surroundings, and other variables, including being immersed in the scenario (Immerse) to perceive the audience's feelings, thoughts, and influencing elements. In addition, the interview (Interview) approach employs in-depth inquiries, such as those beginning with "why," to penetrate the issue and allow the dialogue to flow naturally.

At this stage, the researcher selected four tools for the sub-activity as follows:

- Question and answer of applications are intended to train volunteers to apply Active Listening skills to understand and get to know their interlocutor as much as possible.

- The "Yes, and..." tool requires and encourages volunteers to present their ideas and brainstorm as many of their basic ideas as possible in the shortest possible time regarding their expectations when they are entering old age.

- The "Empathy map" tool requires volunteers to write their own story through what they are seeing, hearing, thinking, and speaking, then writing it on a diagram provided by the researcher.

- The "Odyssey plan" tool allows volunteers to explore and plan their future retirement life under three conditions. Afterward, the researchers had each volunteer choose one of the Odyssey Plans they thought would address their happy and prosperous lives and then present their plans to other volunteers in the group. Then have them share their opinions further from each person's plan. They write their opinions on sticky notes on the board for everyone to categorize. This will help group members see the overall picture and direction of the problem more clearly.

2. Interpreting and defining the problem (Define)

It groups and synthesizes the data to interpret and determine what problems might hinder being a happy older person. It takes the information from Step 1, interpreting and defining it as a real problem. Then ask questions to allow the volunteers to examine their feelings and needs in depth. This enables the volunteers to relate the overall picture and point of view of the group (Point of View), then have the volunteers comment, categorize and correlate the data, and summarize the most important problems or needs to reach.

3. Brainstorming for solutions (Ideate)

The tool used in this step, "How might we...?" asks questions about problems from the previous activity so the group can devise solutions to those problems. For example, if the problem is related to finances and the elderly, it will bring the tools to set up a question. "How can we solve the problem of insufficient funds in retirement?". Then members of each group will proffer as many possible solutions as possible, regardless of limitations or possibilities. This allows volunteers to have fun with their opinions and develop innovative answers. It is an out-of-the-box, versatile idea that can be further designed or developed to solve other problems.

After sharing as many potential options as necessary, each group will collectively classify and pick the best or most feasible solutions for the solution model. It is conceivable for a solution to take the form of a product design, management method, or practice.

4. Making prototype (Prototype)

It adopts the solution obtained from step 3 to create a concrete model or prototype innovation. This prototype may be an operating procedure, a draft, a model, a process, or others. Prototypes should be easy to build, fast, cost less, and not need to be complete prototypes. The prototype is created to experiment and adjust and can replicate until a problem-solving prototype is obtained.

5. Testing and reflection (Test)

It is a prototype for users to try out to receive comments or suggestions (Feedback). This step aims to gather information from the target audience, including observing the target audience's behavior during trials, conducting interviews, and asking for feedback. Then the data are analyzed again to select the data that can honestly answer the problem and develop into an accurate model.

Research result

Objective 1 The factors that promote happy elderly lives.

The situation of preparation as an older person from the literature review. From the study of perception and preparation for the aging of the Thai people (Chuenwattana, 2014). The study comprised 1,620 people aged 50-59. The questionnaire results showed that

Thailand had a moderate level of preparation, accounting for 72.6 percentage overall. And preparing for the elderly must have four aspects of preparation, and these four aspects also have moderate preparation, all of which are Physical and mental 76.7 percentage, economic 74.6 percentage, housing 72.3 percentage, and social 69.9 percentage.

However, there were the studies in urban areas with a wide range of age groups in the population, from the research on preparation for entering the elderly society to a case study of Sai Mai District, Bangkok (Ingkapakorn & Bhanthumnavin, 2019). Three hundred ninety-one people between 18 and 59 answered the questionnaires. The analysis results found that the population in Sai Mai district had moderate physical and mental preparation, as well as economic and social aspects. For housing, there is better preparation than other aspects. Populations over 35 have better preparedness statistics than younger populations. Moreover, all of four aspects of preparation, males were slightly better prepared than females except for housing, where females were than prepared. When analyzing the variables that make this population well-prepared to become an older person, there are three crucial variables:

- 1) Attitudes towards being an elderly person.
- 2) Experience in caring for the elderly in the family.
- 3) Income adequacy.

The Department of Older Persons (Department of Older Persons, 2022a) is proposed to prepare in all four areas as mentioned above. It is also to adjunct the preparation of technology and innovation as the fifth aspect Department of Elderly Affairs. It is proposed to prepare in all four areas mentioned above. It is also to adjunct the preparation of technology and innovation as the fifth aspect so that the pre-aged and older can use technology and innovation in their living. Moreover, it knows how to prevent being a victim of scammers.

Factors affecting future happy elderly lives from Design Thinking workshop Factors affecting being a happy elderly person in the future consist of 6 factors:

1. Society and Participation: Participation in society and those around them involves activities, comments, and group gatherings to do activities that each person is interested in, such as helpful news exchange, volunteer activities, arts and crafts activities, senior tourism, tree planting, home care, health care, and life experience exchange. Furthermore, these activities allow elderly people to feel no isolation. To prepare for their entry into the elderly, elderly people should begin to play a part and become members of various online and on-site groups.

2. Physical and Mental Health: Physical and mental health and attitude are regarded as fundamentals of life. Physical and psychological health and attitude are connected, so they carry out activities typically. Elderly people have positive attitudes when they confront life problems, and then they will have opened attitudes, including accepting that they will be elderly in the future. They will, however, be elderly people who are happy, beautiful, talented, and valuable in the way they are.

3. Education: Learning new and interesting knowledge is the people who are preparing to be the elderlies, seeing that knowledge is essential in the current world. Furthermore, they recognize that future information and skills will permanently alter; thus, they should continue to improve themselves. Again, supposing an institution or source of knowledge can provide reliable knowledge; elderly people are ready to learn and use that institution or authority of knowledge to certify their knowledge, such as the use of basic technology in selling products and services, agriculture, primary care for the elderly, fundamentals of savings and investments, and self-care. Education will allow elderly people to no longer feel unimproved and feel they know and can employ their knowledge to benefit themselves and others.

4. Residence: Residence means the preparation of an appropriate and safe environment for elderly people. It refers to the residence and its surroundings, which include essential utilities and transportation. On a personal level, the preparation relates to the ability to prepare the residence: having their own houses or residences.

5. Finance and Assets: Finance and assets are savings and investment planning to prepare for retirement and living in the elderly age where elderly people cannot forecast their lifespan and illness. As a result, they must arrange financial resources to cover consumption and treatment costs. Furthermore, the volunteers who participated in the activity saw the need for a second occupation; hence, elderly people should seek knowledge, practice, and try to work to make a career after retirement that can generate income when they reach elderly age.

6. Time for preparation: People approaching retirement age are more aware of and see the importance of preparing for becoming elderly than those who are still young or working. If they start to prepare while they are young, it will have a positive effect on living in the elderly time. Therefore, volunteers who participated in the activity thought that the time factor influences preparation for becoming elderly people; thus, volunteers who participated in the activity believed that planning for a happy elderly life should begin when they enter working age, beginning with understanding their current status and readiness to plan with a suitable time, resulting in they become happy elderly people until their sunset years.

Objective 2 Model guidelines for being a happy elderly person by applying design thinking activities as research tools.

Model Guideline 1 Learning network in an online platform. This model approach to planning for happiness in old life emphasizes the importance of mental health and a positive outlook. As the number of older adults living alone continues to rise, a good place to start is by creating social networks where individuals can connect, share ideas, and support one another in developing a positive attitude toward being happy and meaningful older adults. Additionally, social networks provide access to information regarding physical, mental, and financial health from specialists and forums for sharing experiences. Moreover, networks may be used to propel desirable projects or policies. For example, Internet use could aid in

coordinating by simplifying the process of applying for events. As appropriate, similar interests might include organizing art therapy activities and learning about saving and nutrition from specialists through physical and online activities. Additionally, the participants commented that working-age seniors should be able to use communication technology and should be better prepared for diverse participation options. Member databases should be collected for future analysis, with the goal being of promoting the elderly's economic and social well-being.

Model Guideline 2 Community Learning Center. The participants proffer a practical plan for building a senior-focused community learning center. Numerous volunteers have domiciled upcountry and plan to return after retirement. It was also highlighted that they must select a new vocation that fits their strengths while considering the local context, economy, and culture. Thus, building a learning center would assist the community by serving as a repository of knowledge and know-how in agriculture, plant breeding, investment, administration, marketing, accounting, financial management, and knowledge dissemination. Additionally, it would serve as a venue for community members of all ages to organize events to aid one another in health promotion initiatives, acting as a distribution center.

Model Guideline 3 Promotion of financial planning and health insurance systems. This model guideline pertains to financial preparedness, an essential concept for becoming a self-reliant and dependable older person. Financial stability can help reduce anxiety when they become older people who can no longer work for income. This model guideline provides an individualized retirement planning system or knowledge base. Because each individual's work, income, expenses, assets, liabilities, personality, health, and family responsibilities vary, likewise does the optimal time to begin planning for financial security, therefore, having a consultant specializing in finance, investment, savings, and health insurance that is right for each person is a surefire way to ensure a happy older person in the future.

The new body of knowledge

According to the factors in preparation and model guidelines for being happy elderlies that the participants have designed, the researcher saw that more than individual-level preparation is needed since it is a preparation stage at an individual level. Therefore, it should include factors at the social and environmental levels that promote society to create an atmosphere of raising awareness and preparing for an aging society. Factors at the social and ecological levels may include public and private sector organizations that encourage an atmosphere of preparation to allow people to keep up with the rapid transformation of society to an aging society, as well as the ever-changing global scenario. The development of people to being happy elderly people in a community requires support from their surrounding authorities, organizations, or communities. It means that if authorities or organizations in a community encourage group gatherings or joint activities for people in a community; as a result, society is ready to be a base that supports elderly people to be happier people

(Panyaruno, Wijitwatchararak, Amsuk and Charoenjai, 2020). According to the findings of the design thinking workshop, it showed that the social sector, which is an environmental factor contributing to people's preparation for becoming happy elderly people, should have three characteristics as follows:

Social sectors and organization characteristics that are conducive to preparing for happy elderly

Activeness: Social and organizational sectors should be active and learn occurred matters that how the situation of the number of elderly people increasing and the number of working-age people decreasing will affect the future of society and how to support work, health, new knowledge, and saving to allow employees within organizations to have skills and abilities for working; having activeness even as their ages increase, but they are valuable to the organizations; have good health.

Adaptability: Social and organizational sectors should work in an environment combining variety, such as age, attitude, and culture. Therefore, it is essential to respect individuality, including the application of knowledge gained from the experiences of others, to create works and values in organizations. In the future, there will be an increase in cross-generational work; there will be no work assignments from top to down (Silo) in organizations, but there will have listening to the concerns of employees who are mostly of working age. However, senior people continue to serve as policymakers and practice makers. Consequently, adjusting and applying data from various individual knowledge and experience is necessary to employ the situation appropriately and solve the problems encountered together.

Agility: Social and organizational sectors should have skills to deal with ambiguous situations. Currently, information and conditions change over the day, so there is no certainty in terms of life and the economy. If elderly people and organizations continue to stick to the traditional principle, they will lose time and resources. Thus, designs of swift structures or work plans and the reduction of unnecessary steps through communication for mutual understanding can enable the pre-aging population, social sector, and organizations to have sufficient agility to deal with the increasing number of elderly people and the decreasing number of people of working age.

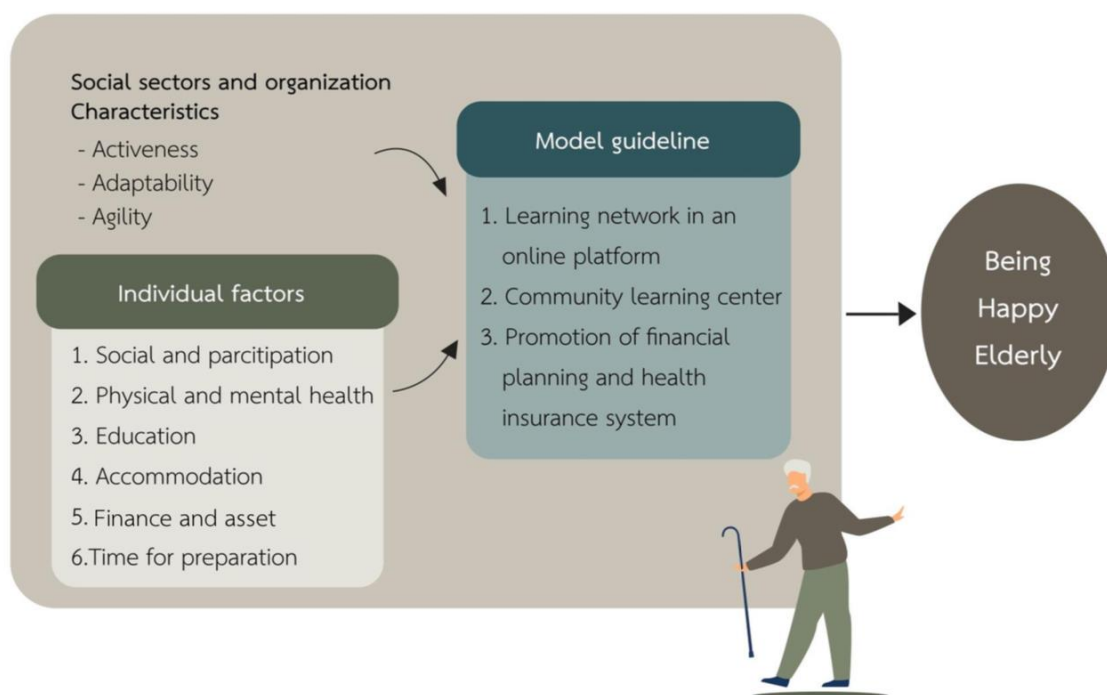


Figure 1: The factors for preparation for being happy elderly people and characteristics of the social sector and organization that facilitate the implementation of guidelines for preparation for being happy elderly person.

1. The Situation of Preparation Being Elderly People

According to the study results about the situation of preparation being elderly people in Thailand (Chuenwattana, 2014), it showed that their preparation level was at a neutral level in all four aspects: 1) Physical and Mental Health; 2) Economy; 3) Residence; and 4) Society and participation. The most significant variables were attitudes toward being elderly people, experiences related to caring for senior family members, and income sufficiency. Therefore, the researcher thought that raising public awareness was a matter that required urgent action. Additionally, organizations and media should foster and disseminate various knowledge.

Income sufficiency was a leading variable that significantly impacted the preparation being elderly people. According to the investigation of factors having relations to the preparation being elderly people of the pre-aging population in Phayao Province (Chaisombut, and Yana, 2019), the results revealed that nearly half of the sample population, or 43.16 percentage, prepared their economic readiness at a low degree, as a result of their occupation, income, and debt. In addition, they were advised to create a financial plan for at least 5 to 10 years and to prepare for residences, caretakers, and annual health examinations. These factors would make the pre-aging population aware of the preparation being elderly people. In addition, the investigation of the preparation of the pre-aging population to enter a quality aging society in Nong Ya Sai Subdistrict, Suphanburi Province (Meechana, Khansakorn, Silawan,

and Rawiworrakul, 2017) revealed that the sample group's economic readiness degree was low.

Moreover, this group's household debt reached 78.0 percentage. The researcher viewed that the situation of preparation being elderly people in terms of the economy might affect other aspects and their surrounding people. In addition, people cannot rely on only their abilities in this factor because they must rely on the knowledge and policies of relevant authorities. Consequently, it was a factor that affected the situation of elderly people at the national level.

2. Factors Affecting the Happiness Being Future Happy Elderly People of Design Thinking Process Participants.

Participants concluded that the six factors for preparation for being happy elderly people. The factors consisted of 1) Physical and Mental Health, 2) Finance; 3) Residence and Occupation after Retirement; 4) Society and Participation; 5) Education; 6) Time for Preparation. These factors aligned with the factor of the preparation elderly people in Thailand (Chuenwattana, 2014), which classified them into four aspects: 1) Physical and Mental Health; 2) Economy; 3) Residence; and 4) Society. In addition, additional factors were received from the participants' suggestions, namely, education and time for preparation.

According to the literature review and activities in this research, the result revealed four identical factors for preparation being elderly people. In the ideate stage, the researcher analyzed and discussed the findings from the ideas proposed by the group. The researcher viewed that the pre-aging population conveniently accessed physical and mental health services, stimulating preparation. Therefore, relevant authorities should promote services to reach more people, especially those not governed by organizations or authorities, such as freelancers, farmers, and merchants. Moreover, they should provide welfare to lower the expense of health examinations and doctor consultations.

Regarding the economic factor, the government sector should promote apparent policies, such as providing education about financial planning; focusing on issuing procedures on the price of utilities, medical supplies, goods, and services that are suitable for elderly people; promoting occupations and incomes to make them consistent with the reduction of household debt. Regarding residence and environment, the government should renovate public areas and improve logistics and transportation to make them suitable for all individuals. Regarding the participation factor, the participation of elderly people was consistent with the study on the Active Aging Index, which found that the active aging of elderly people in Bangkok was lower than that of elderly people in upcountry regions (National Statistical Office, n.d.). Therefore, preparation for this factor should prioritize the pre-aging population in Bangkok and increase the number of centers for activities that people are interested in. However, regarding which patterns the centers will be, further research is required to find the actual needs in each area, such as centers for handcrafted products, cultural preservation, and volunteering.

Regarding the two additional factors, namely, 5) Education and 6) Time for Preparation, it was found that participants gave importance to these factors since new knowledge and technologies had been continuously being developed. New knowledge and technology could raise work efficiency: whether it was a job for the pre-aging or post-retirement age population. The researcher believed that if the knowledge were applied to life, the factors would influence the readiness to be happy elderly people. In contrast, studying briefly interesting or fast-changing information might not be compatible with the preparation being elderly people. In contrast, learning exciting information in a short time or fast-changing information may not be compatible with the preparation being elderly people. In addition, they suggested that if a person reached working age and began to generate income, they should immediately be aware of the preparations for being elderly people.

Nonetheless, the period of early working age is when people shift jobs to discover themselves; thus, it impacts their income and relocation. However, this group is young and healthy; hence, they are unaware of their health and unable to prepare for finance adequately. However, according to the study on Executive Retirement Management (Leedy, and Wynbrandt, 1987), it revealed that the optimal age to begin preparing for being elderly people was the age of 30.

3. Prototype Guidelines of Design Thinking Process Participants for the Preparation for Being Happy Elderly People

Participants planned the three prototype guidelines for the preparation for being happy elderly people: 1) Constructing a Learning Network in an Online Social Model; 2) Constructing Community Learning Centers; 3) Promoting Financial Planning and Health Insurance Systems. The prototype guidelines allowed the researcher to view that they were consistent with the six factors of the preparation for being happy elderly people. However, the most significant factors were the factor of society and participation, career promotion in the community, and finance. After considering these three factors, they were consistent with the characteristics of the participants who lived in detached houses and lived alone in the Bangkok region since they were single or lived alone because their children worked elsewhere or their spouses died. The findings allied with the data on the status of elderly people in 2010 compared to 2020 (The Standard Channel, 2022), the year in which the number of elderly people living alone increased from 9 percentage to 21 percentage. The data allowed the researcher to forecast the trend that people who would be elderly in the future would be elderly people who live alone in a large number. Therefore, it will cause relationship concerns in the aging society.

Moreover, they need to receive information or interact with people of the same age to share experiences and avoid feeling isolated. Regarding occupations after retirement, because most participants were public and private sector employees; thus, they viewed that they would not be able to work their former jobs after retirement. Therefore, they needed an information source that promoted occupations in their communities. In addition, they needed

to have financial planning knowledge to plan savings, investments, and health insurance when they had illnesses to reduce expenses. The activity participants proposed three factors that should be promoted and supported by relevant government and private agencies to make them occur. Additionally, the public required assistance from government authorities to issue policies to raise income and decrease debt for the people.

Discussion of research results

This study sought to identify the elements contributing to a happy old age. The analysis of documents to be compared with the results of the Design thinking workshop revealed that it was consistent with the findings of Chuenwattana (2014), who explained that preparation for entering the elderly was divided into four aspects: preparation, physical and mental health, financial preparation, housing preparation, and preparation for social participation and hobbies (Chuenwattana, 2014). Similar to the findings of Chaisombut and Yana (2019), the research identified seven factors strongly associated with the readiness of the pre-aging group for aging: employment, income, annual physical examination, age, knowledge of aging, attitudes toward aging, and quality of life (Chaisombut and Yana, 2019). However, during the Design Thinking workshop, participants made additional recommendations about two factors contributing to happy aging: preparation knowledge and time of preparation. The research findings and the outcomes of the Design thinking workshop depend on the individual. If a person prepares for the aging process by adhering to the abovementioned characteristics, they can be confident that they will age happily.

Becoming a happy senior citizen requires more than just personal preparedness. The social sector must also be prepared for an older society shortly. Lohapoontrakool (2020) has studied the promotion of various sectors in society and provided opportunities for local people to participate in the implementation and planning of elderly care, resulting in guidelines for establishing cooperation between organizations and action plans for the elderly care (Lohapoontrakool, 2020). And the research of Panyaruno, Wijitwatcharak, Amsuk, and Charoenjai (2020) studied the readiness of temples and social capital contributing to the use of temples as a base for caring for the elderly-self care (Panyaruno et al. 2020). Both studies seek to determine what the social sector should do to enhance the quality of life of the elderly, which is distinct from the outcome of the Design thinking workshop, which is not a guideline or policy for how the social sector should operate for the elderly, but rather a discussion of the characteristics of the ideal social sector. And the research implies that it is a constant issue in the manner in which the social sector should act and the characteristics it should contain.

Conclusion

Participants concluded the six factors for preparation are happy elderly people. The factors consisted of 1) Physical and Mental Health, 2) Finance, 3) Residence and Occupation after Retirement, 4) Society and Participation, 5) Education, and 6) Time for Preparation. They employed these factors to develop prototype guidelines for preparation for being happy elderly people, consisting of 1. Constructing a Learning Network in an Online Social Model, 2. Creating Community Learning Centers, 3. Promoting Financial Planning and Health Insurance Systems. Therefore, the researcher viewed that these three prototype guidelines included connection points, namely the centers, networks, and knowledge resources. These three prototype guidelines wished community or society members to share experiences to alleviate feelings of anxiety and isolation. In addition, they desired knowledge applicable to planning a good life for themselves and society. Moreover, the existence of networks and centers might contribute to more awareness and confidence for preparation being elderly people, as they would see the engagement of individuals of the same age. Nevertheless, being a hub of these prototype guidelines required good management, reliable knowledge sources and information, activity implementation that matched the aptitudes and preferences of the target groups to stimulate members' participation, systematic, easy-understand, and one-stop operation; data collection to avoid misunderstanding and appropriate service for the pre-aging population and elderly people.

Suggestions

1. The suggestions from the research

According to the design thinking process research, psychological techniques were significant since volunteers desired the skills to comprehend their and others' insights. The skills enabled them to recognize their and others' actual needs and summarize problems and solutions. In addition, as an analyst of research findings, the researcher required the skills to comprehend volunteers to obtain activity analysis results that match the characteristics of the volunteers' problems.

Implementing activities with volunteers from diverse backgrounds necessitated a focus on describing the research instrument and conveying an understanding of each activity's objectives to allow volunteers to acknowledge. In addition, the activity operator should provide activities that let the volunteers relax from getting to know each other, resulting in good cooperation and idea presentation with quantity and quality.

Activity arrangement and time affected the volunteer's response since some activities let participants express their ideas in groups briefly; however, the idea presentation was not thorough. However, volunteers spent different periods in activities containing writing to present individual ideas, so those who completed the first might feel bored. As a result, the activity

operator was required to observe and communicate with or allow them to rest, as the activity atmosphere affected brainstorming.

2. The suggestions for future research

The researcher suggested establishing a central education for elderly people, such as clubs, hospitals, and vocational promotion centers, to study elderly people's participation, such as what they wanted from becoming members or participating in activities and what factors obstructing activity participation to link the data with the findings of this research and analyze gaps between factors that the pre-aging population desired and factors that elderly people received that did there enough support resources for the six-factor and was there any additional factor or missed factor impacting the preparation for senior persons in the next generation to offer the information for on-point policy issuing of the government sector.

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