Knowledge Provision Model Through Distance Learning Method for Promoting Quality of Life of the Elderly in Rural Areas of Thailand

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Abstract

Thailand is becoming an elderly society like many countries in the world. The number of elderly people is increasing continuously every year. In order to enable the elderly to live with good quality of life in the rapidly changing society, knowledge and information related to their health and living factors are considered to be necessary for them. Therefore, this study was carried out in order to develop a model of knowledge provision for promoting quality of life of the elderly in rural areas of the country. The samples were drawn from every region of the country which included 480 elderly people, 480 elderly caretakers, and 160 people representing the community leaders, community committee members and staff of local government agencies. Both quantitative and qualitative methods were employed for data collection. The study found that there were five areas of knowledge for promoting quality of life of the elderly: physical health, mental health, social relationship, economic, and learning. The model of knowledge provision to the elderly synthesized from the study could enable the elderly to gain necessary knowledge deemed useful for promoting their quality of life. The elderly, the elderly care caretakers and related people were found to be satisfied with the model.

Keywords: knowledge provision model, quality of life, elderly people, distance learning method, rural areas, Thailand

1. Introduction

Thailand entered aging society over ten years ago. The number of elderly population is continuously increasing year after year. For examples, in the year 2017, there were 10.22 million of the elderly out of the whole population of 66.18 million or 15.45 percent. In 2018, there were 10.66 million of the elderly out of 66.41 million of the whole population or 16.06 percent. In 2019, there were 11.14 million of the elderly out of 66.55 million of the whole population or 15.45 percent. It is expected that the number of these elderly citizens will be about 15.12 million and 17.58 million in the years 2025 and 2030 respectively (Department of Older Persons, 2020).

When people have reached their old age period, they usually have to deal with changes in various aspects of their lives such as physical health, mental health, occupation, social participation and living situations. As for physical health, every part of the body has relatively declined. For mental health, they tend to feel lonely and depressed because their husbands or wives have departed. In case of those who have no children, they often have to live alone. Most of the elderly have less self-confidence and feel insecure. For the aspect of work and occupations, most of the elderly have retired from their jobs. This change significantly affects their regular income. A number of them still need to work because they have no savings and no children to look after them. For the aspect of social participation, most of the elderly have less contact with friends and colleagues in comparison with the time while they were still working (Siripanich, 2006).

The above-mentioned changes and problems force these elderly to adjust themselves quite a lot so that they may live properly during their old age period. One of the main factors which can help them adjust and cope with the situation suitably is providing them with adequate useful knowledge and information. Such a viewpoint was confirmed by the Social Research Institute of Chulalongkorn University (2014). This particular study was conducted with the group of the elderly and revealed that the elderly still faced problems in dealing with aspects of their economic, social and health conditions. As part of the study’s recommendations, it was proposed that necessary preparations for the elderly should be made at two levels namely personal and community. At personal
level, the elderly should be prepared to look after their health and to be alert in searching for useful knowledge or learning new information. At community level, a community elderly group should be set up to take care of the elderly within each community in several aspects such as learning activities, training for new vocations, income promotion activities and informing the elderly know about social welfare made readily available to them. In essence, providing relevant knowledge and information to the elderly was viewed as necessary for helping these elderly. Moreover, a book on lifelong learning for Thai society written by Sungsri (2012) proposed that lifelong learning was necessary for people in every age group including those in the old age period. The elderly people needed to obtain relevant knowledge and information to help them look after their own health and living situation and adjust themselves to cope with changes of social and environment and new technology in the present society. People at this age should live with good quality of life. To achieve that goal, related agencies needed to provide certain knowledge and information to them. This particular point of view is similar to the concept given by a number of educators such as Cropley (1977), Peterson (1979), and Galbraith (1992) who basically proposed the necessity of lifelong learning for people of every age group.

The Thai government also recognizes the necessity of lifelong learning among the elderly people as can be seen in a number of national policies and plans including, the 2nd National Elderly Plan (2002−2021), Ministry of Human Security and Society Development (2010). In the Plan, there are five groups of strategies for developing quality of life of the elderly. Among them, two groups of the strategies propose the promotion of providing ways for the elderly to adequately obtain useful knowledge and information continuously as a process of lifelong learning. The 12nd National Social and Economic Development Plan (2017−2021) has a policy related to the elderly in various aspects. One among them is developing people in every age group in a sustainable manner so that the society becomes a lifelong learning one (Office of National Social and Economic Development Committee, 2017). The National Education Plan (2017−2036) has an objective referred to as aiming for lifelong learning for the elderly. The Plan states that the elderly should be equipped with knowledge and skills which will enable them to work and live with dignity and become self-reliance. The elderly are also encouraged to play the role of transferring and preserving local wisdom for society and country development (Office of National Education Council, 2017).

Even though useful knowledge and information is very necessary for the elderly, but in the real situation it is still found that most of the elderly have limited opportunities to receive the kind of knowledge they actually need. The report of study conducted by Yodpech (2015) revealed that there were several reasons that prevented the elderly to reach useful knowledge and information. These constraints were: 1) limited channels to disseminate knowledge and information to the elderly, 2) physical problems which prevented the elderly from attending learning activities for obtaining useful knowledge, 3) public relations about knowledge dissemination did not reach all the elderly target groups, 4) little relevant information was made available through media like television program and knowledge and information provided was not suitable with the nature of the elderly such as the size of lettering was too small, and 5) the elderly did not know which agencies were responsible for providing needed services to the elderly. In support of the results of this study, the data obtained from conducting informal interviews by the author with a number of the elderly also yielded similar results. Most of the elderly did not know where they could get relevant knowledge and information that they needed, what types of media and learning activities were made available for them. It is worth noting here that these problems were found more among elderly people in rural areas.

Based on the information mentioned above, it is clear that one of the main problems is that the elderly cannot access knowledge and available information that they need. To enable the elderly to gain more access to sources of knowledge and information, current methods of providing knowledge and information to them may have to be reconsidered. In general, methods of disseminating knowledge and information to the elderly should be flexible, accessible, reliable and suitable to the nature of the elderly. It is inconvenient for a number of elderly people to travel to attend face to face learning activities due to time limitation, physical health issues, travelling difficulties and the like. As such, the only method using face to face learning activity may not be enough to serve all of them. One of the methods that may help to solve this problem could be to utilize distance learning method. That is providing knowledge and information to the elderly people through various types of media such as radio and television programs, printed matters, VCD’s, and other types of available modern media. Through this method, the elderly may be able to obtain desirable knowledge and information at any time and any place at their own convenience. It is possible that, if this method is employed, it could be an alternative channel for the elderly to get a better chance at obtaining necessary knowledge and information that suits their needs. Therefore, this study was carried out in order to develop an appropriate approach for providing knowledge and information to the elderly in rural areas of the country through distance learning method.
2. Objectives of the Study
1) To study present situation and problems faced by the elderly in rural areas relating to opportunity in receiving useful knowledge and information,
2) To find out needs of the elderly in rural areas and related people on knowledge that will promote quality of life of the elderly and identify guidelines for providing such knowledge to them through distance learning method,
3) To develop a knowledge provision model for developing quality of life of elderly people in rural areas by distance learning method.

3. Research Method
To serve the objectives of the study, the research was carried out in 3 steps:

3.1 Step 1: Studying Present Situation and Problems Faced and Identifying Needs and Guidelines for Providing Knowledge to Develop Quality of Life of the Elderly

The research in this step was a field study to serve research objective 1 and 2. The details were as follows:

3.1.1 Population and Samples
The population of this study comprised 4 groups of people: 1) elderly people, 2) elderly caretakers, 3) community leaders and community committee, and 4) personnel of related local agencies. To obtain the samples from each group, the researcher employed multi-stages random sampling technique to draw two provinces from each of the four regions across the country. Eight provinces were obtained. From each province, two districts were then randomly selected. From each of the 16 districts obtained, one sub-district was randomly selected which comprised the total of 16 sub-districts. Then, these groups of the samples were drawn from each sub-district:

1) Elderly people. From each 16 sub-districts, 30 elderly people aged between 60–80 were randomly selected. Therefore, the total number of the elderly obtained was 480.
2) Elderly caretakers. Each of the elderly was asked to propose one caretaker. The number of total samples of caretakers was 480.
3) Community leaders and community committee. From each of 16 sub-districts, five people were purposely selected from community leaders and community committee. The total samples were thus 80 people.
4) Personnel of local organizations and related agencies. From each of 16 sub-districts, five people were purposely selected from the personnel of these agencies. The total samples of this group were, therefore, 80 people.

The number of total samples at this step was 1,120 people.

3.1.2 Research Instruments
The research instrument for the elderly was a structured interview form. For elderly caretakers, community leaders and community committee, and personnel of related agencies, each set of questionnaire was employed for each group. The research instruments were evaluated by three experts and tried out with people who were similar to the real samples before using for data collecting.

3.1.3 Data Collection
The researcher asked for assistance from staff of the District Non-formal and Informal education centres (NFE.) located in the sampling districts to co-ordinate with each group of the samples. For the elderly in each sub-district, the researcher made an appointment to interview each of them. At the same period, the researcher also gave questionnaires to the elderly caretakers, community leaders and community committee, and personnel of related agencies in the same sub-district.

3.1.4 Data Analysis
After finishing all data collection, the quantitative data was then analyzed in the form of frequency, percentage, means, and standard deviation while the qualitative data was analyzed using content analysis technique.

3.2 Step 2: Developing a Model of Knowledge Provision by Distance Learning Method for Developing Quality of Life of the Elderly in Rural Areas

The research in this step consisted of two sub-steps:
3.2.1 Synthesizing all Data to Construct the Model

The researcher synthesized all data obtained from the elderly, the elderly caretakers, the community leaders and community committee and the personnel of related agencies together with information in relation to the context of the rural areas to create a knowledge provision model for the elderly.

3.2.2 Verifying the Model

The researcher presented the draft model constructed to 15 experts and related people in a seminar. They included three experts in distance education and elderly people, three elderly people, three elderly caretakers, three community leaders and community committee, and three personnel of related agencies. Comments and suggestions from the experts and these related people were then used to make adjustments for the model.

3.3 Step 3: Trying Out and Evaluating the Model

The researcher selected some of the contents which were voiced as needed at the top level by the elderly to produce in the type of media that the elderly preferred. For this purpose, VCD’s were produced in three parts of 10 minutes sessions in basic knowledge for looking after the elderly’s physical health, the elderly’s mental health and housing for the elderly. These VCD’s were then evaluated by three experts in media production before employing with the elderly. For other components, the researcher also followed the format of the model. For example, period of time of delivering knowledge through VCD was in the morning because the elderly preferred to receive knowledge in the morning. As for location, the activity was organized at a local sub-district Non-formal education centre as preferred by the elderly.

For trying out the model, the researcher selected one of the 16 sample sub-districts to be a sampling area. From that sub-district, 20 elderly people were invited to take part as samples. Moreover, five elderly caretakers and five people chosen from community leaders and community committee members were invited to take part as observers and provide assistance. The elderly were oriented about the activity and asked to do the pre-test before obtaining knowledge from the provided VCD’s about 30 minutes. After going through these sessions, the elderly were asked to do the post-test. Moreover, some of them were interviewed for in-depth information about the activity that they have participated. For the elderly caretakers and the community leaders and community committee members, they were interviewed so that their opinions concerning the contents as provided and quality of the media could be collected. Suggestions from all these samples were synthesized and utilized for improving the model.

4. Findings

4.1 Present Situation and Problems Faced by the Elderly Relating to Opportunity in Receiving Useful Knowledge and Information

Most of the elderly involved in the study stated that they had some opportunity to obtain knowledge and information about physical health, mental health, social participation and economic issues. For the most part, they obtained this knowledge through television channel. Other means which let them obtain knowledge were radio programs and attending activities provided in their areas by related agencies. In regard to problems of obtaining knowledge, the elderly indicated the following problems: they did not know how to search for knowledge from internet, they had no time to search for knowledge from available media, they had no time to attend activities provided by related agencies, they did not know where to obtain knowledge that they actually wanted. The community leaders and community committee stated that the problems connected with the knowledge delivery were: the elderly had no one to take them to attend available activities, the elderly did not realize the importance of participating in the activities, and the elderly had no time to attend activities because they still had to work to earn their living.

4.2 Needs and Guidelines for Providing Knowledge for the Elderly Through Distance Learning Method

The needs of the elderly matched with the opinions of the elderly caretakers, the community leaders and community committee and personnel of local agencies. It can be concluded that knowledge which could promote quality of life of the elderly can be categorized into five areas. They were physical health, mental health, social relationship, economics, and learning for the elderly. Within each area, the elderly needed knowledge in several items. Table 1 illustrated top 3 items of knowledge and information in each of the five areas needed by the elderly.
Table 1. Needs of the elderly for knowledge and information deemed useful for promoting their quality of lives

| Types knowledge and information | Level of need |
|---------------------------------|--------------|
|                                 | X | S.D. | meaning |
| Physical health                 |   |      |         |
| 1. social welfare related to physical health | 3.96 | 0.95 | high |
| 2. basic knowledge for physical health care | 3.90 | 0.83 | high |
| 3. practical guidelines using when they were sick | 3.85 | 0.87 | high |
| Mental health                   |   |      |         |
| 1. how to prepare themselves for the last period of life | 3.65 | 0.86 | high |
| 2. knowledge about religious principles | 3.64 | 0.90 | high |
| 3. applying religious taught for living and solving problems | 3.62 | 0.84 | high |
| Social relationship             |   |      |         |
| 1. social welfare for elderly people | 3.86 | 0.91 | high |
| 2. how to have good relationship with members of family | 3.77 | 0.84 | high |
| 3. roles of the elderly for the younger generation in the family | 3.74 | 0.83 | high |
| Economics                       |   |      |         |
| 1. financial welfare for elderly cost of living | 3.92 | 0.87 | high |
| 2. agencies that provide occupational guidance for the elderly | 3.86 | 0.93 | high |
| 3. money savings guidelines | 3.83 | 0.91 | high |
| Learning or knowledge seeking   |   |      |         |
| 1. agencies to obtain suggestions about knowledge seeking | 3.62 | 0.75 | high |
| 2. methods for seeking knowledge and information | 3.61 | 0.86 | high |
| 3. sources of useful knowledge for the elderly | 3.59 | 0.88 | high |

Table 1 showed the top 3 items in each area that the elderly required at a high level. For example, in the area of physical health, the elderly needed knowledge and information about social welfare related to physical health, basic knowledge for physical health care and practical guidelines to be followed when they were sick respectively. In the area of mental health, they needed knowledge and information about how to prepare themselves for the last period of life most.

The elderly were also asked about types of media that they preferred as channels to obtain these knowledge and information. The results are shown in Table 2.

Table 2. Needs of the elderly for types of media from which they can obtain knowledge and information

| Types of media         | N  | %   |
|------------------------|----|-----|
| radio                  | 158| 32.96 |
| television             | 134| 27.91 |
| VCD                    | 57 | 11.87 |
| booklet                | 44 | 9.16  |
| internet               | 35 | 7.30  |
| Village news tower     | 34 | 7.10  |
| others                 | 18 | 3.70  |
| Total                  | 480| 100.00|

Table 2 showed that the elderly would like to obtain knowledge and information through radio, television, VCD and booklet respectively. The data were similar to results obtained from additional in-depth interviews conducted with some of the elderly. They stated that they liked to obtain knowledge from media accompanying this with face-to-face meetings.

The study also found that the group of related people (elderly caretakers, the community leaders and community committee) had similar ideas with the elderly about types of media for disseminating knowledge to the elderly, agencies to be responsible for organizing activities to the elderly, location of activities and participation of related people in providing knowledge to the elderly. These results were synthesized to construct the model as shown in 4.3.

4.3 A Model of Knowledge Provision by Distance Learning Method for Developing Quality of Life of the Elderly in Rural Areas

The model synthesized from this study covered the following aspects: analysis of present situation and needs of
the elderly, designing a learning program, designing scope of contents, selecting and producing media for delivering knowledge (distance learning method), knowledge delivering process, evaluation, participation of elderly caretakers, participation of community leaders, community committee and personnel of local agencies and responsible agencies.

1) Analysis of present situation and needs of the target group (the elderly).

The model started with analysis of present situation and needs of the society and the target group or the elderly. The aforementioned information, especially the needs of the elderly were very useful for designing the learning program.

2) Designing the learning program. From identifying needs of the elderly and related people in rural areas as in 1), the program was designed to provide knowledge to promote quality of life of the elderly in rural areas using distance education method as a main delivery channel.

3) Identifying scope of contents/curriculum. From analysis of the needs of elderly and related people in this study, the contents for promoting quality of life of the elderly should cover five areas. Main contents within each area were presented in Table 1.

4) Method/media for delivering knowledge. The model proposed the use of distance learning method accompanying with face-to-face meeting. Media proposed for transferring knowledge to the elderly were radio, television, VCD, face to face training, and village news tower respectively.

5) Knowledge transferring activity. As for transferring knowledge to the elderly through radio or television channels, appropriate time slots should be 9−10 a.m. or 7−8 a.m. or 5−6 a.m. In case of organizing training activities for the elderly, the period of time should be about half a day of any given weekday. Locations for these activities should be at local temples or sub-district NFE centres or at the elderly club centres.

6) Evaluation. Evaluation of the knowledge provision program in this model covered evaluation of knowledge and understanding of the elderly in the contents provided and their satisfaction with the media and the program.

7) Participation of elderly caretakers. These caretakers could take part in the knowledge provision model by accompanying the elderly to attend available activities or providing information about available activities to the elderly or supporting budget to the elderly so that they could attend such activities.

8) Participation of community leaders, community committee and personnel of local agencies. These people could provide assistance to the program in various forms such as organizing learning activities to the elderly, helping concerned providers to organize learning activities for the elderly, gathering and producing useful knowledge into different forms of media, and providing advice about learning resources to the elderly.

9) Responsible agencies. Agencies which were proposed to be responsible for providing knowledge/learning activities to the elderly were local Public Health offices, Sub-district NFE centres and the Community elderly clubs.

4.4 Results of the Try-Out and Evaluation of the Model

The results showed that after obtaining knowledge through the model, the elderly had significantly higher scores of knowledge and understanding in the contents than prior learning with a statistical level of 0.05. Moreover, the elderly were satisfied at the highest level with the model as shown in Table 3.
Table 3. Satisfaction level of the elderly in regard to the contents and quality of the media (VCD) used in the model

| Items                              | Level of satisfaction | S.D. | meaning |
|------------------------------------|-----------------------|------|---------|
| Contents provided                  |                       |      |         |
| 1. relation to the elderly         | 4.84                  | 0.37 | highest |
| 2. interesting                     | 4.79                  | 0.42 | highest |
| 3. length of the contents          | 4.74                  | 0.45 | highest |
| 4. ease of understanding           | 4.79                  | 0.42 | highest |
| 5. applicability                   | 4.84                  | 0.37 | highest |
| Pictures in the VCD                |                       |      |         |
| 6. relation to contents            | 4.84                  | 0.37 | highest |
| 7. clarity                         | 4.89                  | 0.32 | highest |
| Narration in the VCD               |                       |      |         |
| 8. use of voice and sound          | 4.68                  | 0.48 | highest |
| 9. narration                       | 4.74                  | 0.45 | highest |
| Length of VCD                      |                       |      |         |
| 10. length of each session         | 4.79                  | 0.71 | highest |
| Knowledge applications             |                       |      |         |
| 11. applicability for daily life   | 4.89                  | 0.32 | highest |
| 12. possibility for transferring knowledge to others | 4.89 | 0.32 | highest |

Table 3 showed that the elderly were satisfied at a highest level with the contents as provided and the quality of the media (VCD’s) regarding pictures, narration, lighting, length of each session, and knowledge applicable to their daily lives. The data obtained from interviewing the elderly caretakers, community leaders and community committee, as the observers of the activity, also supported the results in Table 3. These people indicated that they were satisfied with the model. The content was deemed to be very useful for the elderly. The method used for transferring knowledge to the elderly in the form of VCD’s was suitable and should enable the elderly to gain better understanding of the content. The length of each session in VCD’s was suitable for maintaining interest of the elderly. The pictures were related to the contents and helped to promote better understanding of the information being studied and that the narration was very clear.

5. Discussion

The study found that elderly people in rural areas of Thailand needed knowledge and information in five areas in order to promote their quality of life in the present society. These areas were: physical health, mental health, social relationship, economics, and learning. This finding is in line with the concept on the elderly’s quality of life development of Vasee (2000). He proposed that quality of life of the elderly included quality in physical health, in mental health, in social factors and in intelligent development. The outcome of the study is also found to be quite similar to the framework of elderly’s quality of life proposed by World Health Organization (2012) which included six domains: physical capacity, psychological, level of independence, social relationship, environment, and spirituality/personal belief. Moreover, the finding is also similar to results in the study conducted by Dhammasiri (2006) who found that needs of the elderly were in four main aspects: physical health, mental health, social factor and economic factor.

For detail of knowledge in each area, the elderly needed several kinds of knowledge. For examples, in the area of physical health, the elderly needed knowledge and information about social welfare to maintain physical health, basic knowledge for looking after the elderly’s physical health and practical guidelines for the sick elderly. For the area of mental health, the elderly wanted knowledge about how to prepare themselves for the last period of life, religion principles for living and for solving problems. This finding matched with results of the study of Kooha (2009) who studied guidelines for improving quality of life of the elderly in Nong-Kao sub-district, Kanchanaburi province. She found that most of the elderly still faced problems in physical health and mental health. The study proposed activities to provide knowledge for looking after health and provide health services to the elderly. Moreover, religion activities in communities were also proposed to support the elderly’s mental health.

In regard to guidelines for providing knowledge and information to the elderly in rural areas by distance learning, the study found that the elderly preferred to obtain related knowledge and information through radio broadcast most. Next in the elderly’s preferences were television programs, VCD’s and lecturing or training. As for time slots deemed to be convenient for obtaining knowledge from these media, the elderly suggested 9–10 a.m., 7–8
Number of elderly people in Thailand is continuously increasing every year. The government and related agencies have paid attention in taking care of them to have good quality of life. One of the main factors which can help them adjust and cope with facing problems suitably is having adequate useful knowledge and information. But it is still found that most of them, particularly those in rural areas, have limited opportunities to receive the kind of knowledge they actually need. They did not know where they could get relevant knowledge and information. This study proposes a model of knowledge provision through media or distance learning based on the needs of the elderly and related people in rural areas. It is found that disseminating knowledge through media is an alternative approach to let the elderly have more opportunity to obtain knowledge and information which are useful for them. The agencies which their work relate to elderly quality of life promotion such as the Community Development Department, the Department of Older Persons, The Office of Non-formal and Informal Education Promotion at district and sub-district levels should bring this model to implement in each local area. For implementation, the model can be adjusted to fit with the needs of the elderly and the context of each area. Moreover, the participation of local people such as community leaders and community committee are
important. The author believes that with appropriate administration and proper application of this model, the elderly in rural areas throughout the country will have more opportunity to obtain knowledge useful for promoting their quality of life as a lifelong learning process.

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References

Cropley, A. J. (1977). *Lifelong education: A psychological analysis*. New York: Pergamon. https://doi.org/10.1016/B978-0-08-021814-4.50008-0

Department of Older Persons, Ministry of Social Development and Human Security. (2020). *Statistics of elderly population*. Bangkok: Department of Older Persons.

Dhammasiri, B. (2006). Family and elderly caring. *Garavek Journal*, 47–56. Special issue on exhibition for the royal academic day. Faculty of Science and Technology, Walai Alongkorn Rachabhat University.

Duang-Udom, V. (2012). Developing appropriate media for developing quality of life of the elderly in Bangkok Metropolitan and in Prea province. *Chantarakasem Sarn*, 18(34), 13–22.

Galbraith, M. W. (1992). *Education in the rural American community: A lifelong process*. Melbourne, FL: Krieger Publishing.

Holmberg, B. (1995). *Theory and practice of distance education*. London: Routledge.

Kooha, S. (2009). *Guidelines for adjusting quality of life of the elderly in Nong-Kao Sub-district, Thamaung District, Kanchanaburi province*. Unpublished master’s thesis. Khonkean University, Khonkean, Thailand.

Lewis, R., & McDonald, L. (1988). *The open learning packet workbook*. London: National Council for Educational Technology.

Mantyla, K., & Gividen, J. R. (1997). *Distance learning: A step by step guide for trainers*. Jacksonville, FL: The American Society for Training and Development.

Ministry of Social Development and Human Security. (2010). *The 2nd National Elderly Plan (2002–2021)*. Bangkok: Ministry of Social Development and Human Security.

Nanda, V. K. (1998). *Typology of distance teaching systems*. New Delhi: Anmol Publications.

Office of National Education Council. (2017). *The National Education Plan (2017–2036)*. Bangkok: Office of National Education Council.

Office of National Social and Economic Development Committee. (2017). *The 12nd National Social and Economic Development Plan (2017–2021)*. Bangkok: Office of National Social and Economic Development Committee.

Peterson, R. E. (1979). *Lifelong learning in America*. San Francisco: Jossey Bass Publisher.

Rumble, G. (1986). *The planning and management of distance education*. Kent, UK: Croom Helm Ltd.

Siripanich, B. (2006). *A completed elderly manual*. Bangkok: Mawchawban Printing.

Social Research Institute of Chulalongkorn University. (2014). *A report of gathering opinions of people in distance areas of Thailand on issues for development after the year 2015*. Bangkok: Social Research Institute of Chulalongkorn University.

Sudsomboon, S., Hemchayad, U., Kaenla, P., & Sudsomboon, S. (2018). *Developing curriculum on elderly self-Caring by following Economic Sufficiency Philosophy*. Bangkok: Public Health System Research Institute, Ministry of Public Health.

Sungsri, S. (2012). *Lifelong learning for Thai society*. Nonthaburi: Sukhothai Thammathirat Open University Printing House.

Thrup-Intra, R., & Kowrobtham, Y. (2017). Media and the elderly in Thailand. *Journal of Communication Art, Dhurakit Bandit*, 1(2), 367–387.

Vasee, P. (2000). *Health as human being Ideology*. Bangkok: Pimdee Publishing.
World Health Organization. (2012). *The World Health Organization Quality of Life (WHOQOL)*. Retrieved from http://www.who.int/publications/i/item/WHO-HIS-HIS-Rev.2012.03

Yodpech, S. (2015). Right and welfare for the elderly. In School of Human Ecology, Sukhothai Thammathirat Open University (Ed.), *Textbook on Adult development and aging* (Chapter 12, pp. 12-1-12-49). Nonthaburi: Sukhothai Thammathirat Open University Printing House.

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