



## Original Article

# UNESCO Factors Affecting Building Phayao Learning City of Thailand: An Opinion from the Senior Citizens

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## Abstract

UNESCO promotes learning cities and lifelong learning to assure sustainable resilience of community in a fast changing world. There are six dimensions affecting building a learning city according to UNESCO: planning, involvement, accessibility, monitoring and evaluation, celebration, and funding. Phayao Learning City has applied these dimensions in this framework, and this paper analyses the opinion of senior citizens in Phayao Province's about UNESCO's input on Phayao Learning City. There were 34 senior Phayao citizens who answered questionnaires derived from UNESCO's factor affecting Learning City. The statistical analysis of mean, S.D., and causal relationship were calculated. Another 15 subjects were asked to participate in the interview. Thematic analyses with theme-rhyme analysis were used for the interview data. The results, unlike most previous studies, have shown that the seniors mentioned 'Accessibility' as the most important factor for both lifelong learning and learning city. This factor received a positive direct effect (DE) ( $DE = 0.843$ ) from 'Celebration' and positive indirect effect (IE) from 'Planning' ( $IE = 0.329$ ) and 'Involvement' ( $IE = 0.195$ ). On the contrary, 'Funding' showed a negative direct effect on 'Accessibility' ( $DE = -0.269$ ). This means that funding is a hidden obstacle on building Phayao Learning City. The interview's results also supported data from the questionnaires. The results suggested that building Phayao Learning City requires a combination of factors.

**Keywords:** UNESCO, Learning City, Thailand

## Introduction

One half of the world's population lives in urban areas (Hannah & Roser, 2018). In Asia, UNCTAD (United Nations Conference on Trade and Development) found a 42.3 per cent urbanization rate in 2009 that increased to 49.1 per cent in 2019. The United Nations Educational, Scientific and Cultural Organization

(UNESCO) (2015) has predicted that 60% of the world's population will soon be living in cities. This fast-changing phenomenon will definitely cause economic and social problems (Meyeong et al., 2018); therefore, sustainable development of cities is crucial.

Urban developers and researchers are currently engaged in enhanced and lifelong learning to sustain

cities. Various studies have confirmed learning as a key to a higher life quality. Edgerton et al. (2012) suggested that learning deliberately increased monthly income; this is in the line with Ionela (2012) who found relationships between lifelong learning and employment rates in Romania. Kaplan et al. (2014) further suggested long life span to be widened according to learning. We concluded that learning empowers sustainability of the city (Carrillo et al., 2018; Jakkapattarawong et al., 2018; May & Perry, 2018; Sun et al., 2021).

Phayao Municipality is a city of Phayao Province in the northern part of Thailand; it is 140 kilometers from Chiang Mai. The population density living in the area is 1.882 per square kilometre, which is higher than the standard population density of 1,500 per square kilometre (Dijkstra & Poelman, 2014). Therefore, Phayao Municipality is undoubtedly categorized as an urban area. Similar to other cities, Phayao Municipality has confronted political and economic change during the COVID-19 pandemic. Municipal laws and regulations of Phayao Municipality cannot be solely solved by change and disruption (Wises & Chantima, 2016; Wongchampa et al., 2016).

Over decades, researchers have reported that factors affecting city development include 'involvement' among stakeholders. Steinbrecher et al. (2018) found that a collaboration of municipalities, private sectors, and institutions are key driving forces in smart cities in Germany. This is in the line with city development in Sweden (Fenton, 2016; Fenton et al., 2016). Similarly, in Thailand, Butsaba (2013), Jakkapattarawong et al. (2018), Kalayanamitra et al. (2020), and Rungwicha et al. (2020) found that the local government, private sector, and community collaboration are the most important factors in urban development. Therefore, Phayao Municipality and the University of Phayao, as the local institution, have collaborated in underpinning Phayao Learning City as a tool for the city preparation

for the on-going change and sustainability. The collaboration in establishing Phayao Learning City is in correspondence with UNESCO (1998)'s statement for the institutional role to endow world citizenship through lifelong learning process. In past decades, Phayao Municipality and the institution have long collaborated to develop human resources in the community. This robust relationship of the stakeholders in Phayao Province area (Pongpattanasiri et al., 2013) can help design a learning city at Phayao.

Other factors that vary by city also affect city development (Butsaba, 2013). Meyeong et al. (2018) and Pechpakdee (2018) suggested various factors for building a large city while Garcia et al. (2009) mentioned different factors for small city construction. Interestingly, Tegtmeier (2011) clearly stated that the institution and the concept of the 'American Dream' could be key success factors for sustainability in the City of Lincoln. Facer and Buchczyk (2019a) found fundamental faculties and learning space to be the main factor of a successful learning city. Facer & Buchczyk (2019a) also found learning space as the centre of shared feeling for learners. In Thailand, several researches reported 'Involvement' as the main factor for smart cities or secondary cities (Kao-un et al., 2018; Mangkhang, 2017; Narkkong et al., 2016; Pechpakdee, 2018). Chiang Rai and Phuket are some cities of Thailand defined by UNESCO as learning cities. However, there is limited research on how UNESCO's learning criteria affects the city (Sajjasophon, 2012).

Research into the factors affecting building a city in Thailand is mostly based on applied questionnaires and causal relationship analysis. Recently, Facer and Buchczyk (2019a, 2019b) used practical discourse as another method of analysis to show that the information structure of language could be used to analyse factors affecting building a learning city. There is limited research into learning cities in Thailand using this

method. For example, Medhaakkharakiat and Siriwong (2019) applied a practical discourse in Thailand 4.0 education. Thus, this research article implemented both questionnaires with causal relationship analysis and interviews with practical discourse analysis.

The sample group used here were pioneers who enrolled for the 1<sup>st</sup> course of Phayao Learning City. The participants are all 60 years of age or above: Phayao Province is an aging society; 7% of the people living in Phayao Municipality are over age 60. Considering the consensus statistics, the senior citizens in Phayao Municipality tend to be the main group of people to drive the city. However, most of them are informal laborers; only 50% of them have a high school degree (National Statistical Office of Thailand, 2019). Moreover, Bai et al. (2020), Rainer (2014), and Sajjasophon (2012) found that senior citizens should be supported to participate in every platform of learning in the city to strengthen the community. Therefore, the research questions are: (1) What factors have affected to Phayao Learning City development? and (2) Do those factors affect building the learning city corresponding to those reported in previous research?

### **Objective**

To analyse the UNESCO's factors affecting building Phayao Learning City

### **Literature review**

UNESCO (2017) has deliberately explained a learning city as a tool to enhance wellness, life quality, and resilience for the community through various platforms of lifelong learning: learning space, the workplace, or even in the family. Learning cities need effective allocation of resources including people, finance, policy, culture, local wisdom, etc. A learning city is beneficial not only for to community life quality and the economy (Ionela, 2012; McQuaid, 1996) but also offers sustainable environmental preservation (Gough

et al., 2001; Williams, 2005). However, in the year 2019, Facer and Buchczyk (2019) recalled Biesta (2014)'s argument that a learning city is a kind of rigorous practice in education and is a form of colonization. They suggested that nuisance of local politics should be set apart, but that the philosophy of education should be included in the development of a learning city. Hence, other approaches to drive learning cities have been completed though the academic institution (Brennan & Cochrane, 2019; Rungwicha et al., 2020; Tegtmeier, 2011).

UNESCO (1998) stated that the implementation of lifelong learning strategies can solve the problem of economic, social, and urban expansion. Its goal is a sustainable city and sustainable development goals (SDGs) in particular those SDGs that emphasize inclusive, equitable, and quality education. This indicates the most effective learning city movement can be identified by 'accessibility' in all forms of learning.

UNESCO (2017) has identified six factors affecting the mobility of learning cities: planning, involvement, accessibility, monitoring and evaluation, celebration, and funding: These were used as criteria for constructing the questionnaire. There are many factors driving the Learning City in Thailand although not much have been academically reported on these factors in the Thai context. Sajjasophon (2012) studied learning city development among senior people: "The Scenario of a Learning City Model Based on the Lifelong Learning Concept for the Development of Thai Active Aging". That work used a qualitative foresight approach. A practical strategy for driving the city of learning into action consists of setting public policies, a lifelong learning curriculum to improve the power of Thai, management of aging, and development of the necessary infrastructure to thus form a learning environment and knowledge management for the development of a national learning network. This in turn helps allocate resources for the development of

the learning city based on the concept of lifelong learning. This approach can improve the power of the senior citizens in Thailand. This is in the line with Nasaree et al. (2014) who studied the strategy used to develop Ubonratchathani Municipality in Northeastern Thailand as a learning city. The results showed that the five factors promoting urban development were (1) knowledge development strategy, (2) learning development strategy, (3) organizational development strategy, (4) personal development strategy, and (5) technological development strategy. Narkkong et al. (2016) applied both a questionnaire and the interview to study learning space development according to Bangkok strategy. A review of 16 learning cities such as Britain, Australia, Canada, etc. was also reported. The data from the questionnaire and the interview indicated that factors affecting Bangkok learning spaces are (1) strong will and commitment of the stakeholders, (2) collaboration between relevant sectors including the public, private and community sectors, and (3) allocation of necessary resources. When comparing Bangkok with other learning cities, we found that technological strategy was widely invested worldwide. We reported that the accessibility of various activities on learning spaces to reach the target learners was the main factor for building a learning city as well as the participatory factor.

Butsaba (2013) studied guidelines for lifelong learning activities to promote reading urbanization using a Delphi technique. The factors promoting lifelong learning were (1) principles and policies guidelines to raise public awareness of the importance of reading, (2) guidelines for the development of reading cities and reading activities should be developed according to the context of each area, (3) guidelines for various learning activities, (4) guidelines for learning resources where the books and media should be well-organized and reasonable in terms of price, place, and environment, and (5) guidelines for networking of stakeholders—all

departments and organizations should jointly organize activities to promote reading activities. Masatienwong et al. (2019) studied the process of developing a learning community based on the principles of brain-based learning. There are important factors on learning development as follows: (1) family: promoting positive family energy, (2) school: the process of developing and designing a learning system according to the principles of brain-based learning, and (3) community: planning, support, monitoring, and knowledge management working group.

We conclude that the factor affecting urban mobility and learning city is the participation of network partners or 'involvement' (Kao-un et al., 2018; Mangkhang, 2017; Narkkong et al., 2016; Pechpakdee, 2018) including stakeholders such as private sectors, school, and community sectors (Sajjasophon, 2012). Learning in learning city areas and 'accessibility' leads to success in improving quality of life (Edgerton et al., 2012; Ionela, 2012), life span (Kaplan et al., 2014), and urban environment preservation (Jakkapattarawong et al., 2018; Sun et al., 2021).

### **Methodology**

This research contains two parts: quantitative and qualitative. In quantitative terms, we used a questionnaire created according to UNESCO's criteria to analyse the factors that help Phayao Municipality area be a learning city. The questions were divided into six areas according to the principles of the UNESCOs' (UNESCO, 2017). The factors are 'planning' means the act of designing and thinking about how to achieve the goal, 'involvement' means the participation of stakeholders, 'accessibility' means the process to access to learning resources, 'monitoring and evaluation' means the process of assessment, 'celebration' means public relations to create awareness, and 'funding' means the budget to support learning city. The participants consisted of 34 people comprising senior

citizens who were pioneers and enrolled in Phayao Learning City courses. This senior group must be motivated and recognize the importance of city development through learning; i.e., key conditions for a learning city.

The questionnaire was evaluated by three experts. The IOCs achieved average scores of 0.76, which suggested a credible questionnaire. In the questionnaire analysis, descriptive statistics including the mean (mean) and standard deviation (S.D.) were used. The mean analysis criteria are based on the concept as follows:

$$\frac{\text{Range}}{\text{Number of range}} = \frac{\text{Max. scores} - \text{Min. scores}}{\text{Number of range}} = \frac{5 - 1}{5} = 0.8$$

that is

Average score 4.21-5.00 means that the participants' opinion is at highest level

Average score 3.41-4.20 means that the participants' opinion is high level

Average score 2.61-3.40 means that the participants' opinion is moderate level

Average score of 1.81-2.60 means that the participants' opinion is low level

Average score of 1.00-1.80 means that the participants' opinion is at the lowest level

The causal relationship was then applied to analyse the factors consisted of planning, involvement, accessibility, monitoring and evaluation, celebration, and funding towards Phayao Learning City development.

The first step to calculate the casual relationship is to review the literature including concepts, theories, and related research. This can help develop hypotheses and create a preliminary model of which UNESCO factor is the primary one affecting the development of Phayao Learning City. A causal model based on the hypothesis was then drawn.

The hypothesis-based causal relationship of Phayao Learning City Model was calculated using index values from measure of goodness, calculation of full model

(FM), and calculation of over-identified model (OM) or the  $R^2_{OM}$  values to confirm that the hypothesis-based causal relationship of Phayao Learning City Model is effective in driving Phayao Learning City at a significance level of 0.05. The direct effect (DE) and the indirect effect (IE) of planning, involvement, accessibility, monitoring and evaluation, celebration, and funding towards Phayao Learning City development were then calculated.

In terms of qualitative data analysis, 15 senior citizens were selected by a specific random method: These people have lived in Phayao Municipality area and enrolled in Phayao Learning City course. The participants are females aged over 60 years old with a high school degree. They were then asked to answer two questions: (1) In your opinion, what are the factors affecting building Phayao Learning City? and (2) How can Phayao Learning City promote lifelong learning for people in Phayao Municipality? The two questions were reviewed, and a reliability test revealed an acceptance of the questions. The researcher analyzed the data by splitting the data derived from the interview into Information units called 'theme' and 'rhyme'. Theme refers to the main message of information, and 'rhyme' refers to the subordinate clause that expands the meaning of theme. The data were then analyzed with thematic analysis approach to categorize the meaning of the analyzed data of theme and rhyme. Here are some examples of interview data and an example of 'theme' and 'rhyme' analysis:

*"Ongoing activities arouse public interest and attract senior people to learn more frequently."*  
(Mrs. A)

*"Learning resources are important and contribute to lifelong learning."*

*"People of all genders and ages have access to local learning resources."*

**Table 1** An example of ‘theme’ and ‘rhyme’ analysis

Line number	Theme	Rhyme
1	ongoing activities	arouse public interest and attract senior people to learn more frequently
2	learning resources	are important and contribute to lifelong learning
3	people of all genders and ages	have access to local learning resources

Table 1 shows that the meaning of the rhyme in the first line can be grouped with the rhyme in the third line. The meanings are relevant to ‘accessibility’ of UNESCOs’ criteria in building a leaning city. After analyzing both quantitative and qualitative data, the results are presented in the table and figure below.

**Results**

The results are divided into three sections: opinion of senior citizens about the factors affecting Phayao Learning City, Causal relationship model, and interview result.

**Opinion of senior citizens about the factors affecting Phayao Learning City**

The opinion of senior citizens about factors affecting building Phayao Learning City based on UNESCO (2017) are presented in Table 2.

**Table 2** Opinion of senior citizens about the Factors Affecting Phayao Learning City

Factors	Mean	S.D.	Interpretation
<b>Planning</b>	<b>4.32</b>	<b>0.452</b>	<b>Highest</b>
1. A common vision is established.	4.32	0.727	Highest
2. Collaboration strategies are established.	4.26	0.751	Highest
3. Short-term and long-term plans are set.	4.29	0.629	Highest
4. A collaborative plan among stakeholders.	4.47	0.615	Highest
5. The government’s strategy and the sustainable development goals (SDG) in the plan.	4.15	0.657	High
6. SWOT analysis used in planning process.	4.29	0.579	Highest

7. A plan to bring various sectors such as private sector, community, etc. to participate in building Phayao Learning City.	4.38	0.779	Highest
8. A continuous working plan, such as organizing a meeting, hearing public opinions, and a survey of the community’s needs.	4.35	0.646	Highest
<b>Involvement</b>	<b>4.24</b>	<b>0.606</b>	<b>Highest</b>
1. Duties/job descriptions assigned to each stakeholder.	4.24	0.606	Highest
2. Meetings set for stakeholders.	4.15	0.657	High
3. A search in the government sector for new stakeholders.	3.94	0.547	High
4. A search in the private sector for new stakeholders.	3.94	0.694	High
5. A search in community for new stakeholders.	4.00	0.603	High
6. Benefits allocated to different groups of stakeholders.	3.91	0.668	High
7. A social contract among stakeholders.	4.03	0.521	High
8. The public sector invited to acknowledge the learning city development process.	4.03	0.358	High
<b>Accessibility</b>	<b>4.19</b>	<b>0.392</b>	<b>High</b>
1. An analysis of learners’ needs.	4.21	0.641	Highest
2. A comprehensive learning management for learners regardless of their age, wealth, or ethnic, etc.	4.38	0.551	Highest
3. Learning content from basic to advanced level provided.	4.29	0.676	Highest
4. Obstacles to learners’ access to learning eliminated by using modern technology.	3.88	0.537	High
5. Language barriers that affect learning are eliminated.	3.76	0.654	High
6. Community culture learning base.	4.38	0.697	Highest
7. Learning in the workplace.	4.18	0.576	High
8. Learning in the family and community.	4.32	0.638	Highest
9. Peer-to-peer learning.	4.12	0.686	High
10. Both online and offline learning provided.	4.12	0.591	High
11. Lifelong learning process.	4.44	0.613	Highest

**Table 2 (continued)**

Factors	Mean	S.D.	Interpretation
<b>Monitoring and Evaluation</b>	<b>4.06</b>	<b>0.434</b>	<b>High</b>
1. The literacy rate is assessed.	3.71	0.579	High
2. An analysis of the factors affecting the learning city.	3.97	0.577	High
3. A systematic collection of relevant information.	4.12	0.640	High
4. A systematic synthesis of information.	4.06	0.649	High
5. Learners' assessment.	4.29	0.579	Highest
6. Teachers' assessment.	4.12	0.591	High
7. A progress report on project implementation.	4.18	0.576	High
<b>Celebration</b>	<b>4.16</b>	<b>0.443</b>	<b>High</b>
1. A public relations process for learning city.	4.09	0.753	High
2. Creating a positive perception.	4.18	0.576	High
3. An incentive for public to participate in Phayao Learning City.	4.18	0.626	High
4. Strengthened the present network through campaigns.	4.24	0.654	Highest
5. Public relations to create a new network.	4.24	0.554	Highest
6. Public relations covering all channels.	4.03	0.577	High
7. Ongoing events to create awareness of learning city.	4.18	0.673	High
<b>Funding</b>	<b>3.66</b>	<b>0.7626</b>	<b>High</b>
1. Funding from stakeholders.	3.56	1.021	High
2. Funding from the government.	3.76	0.890	High

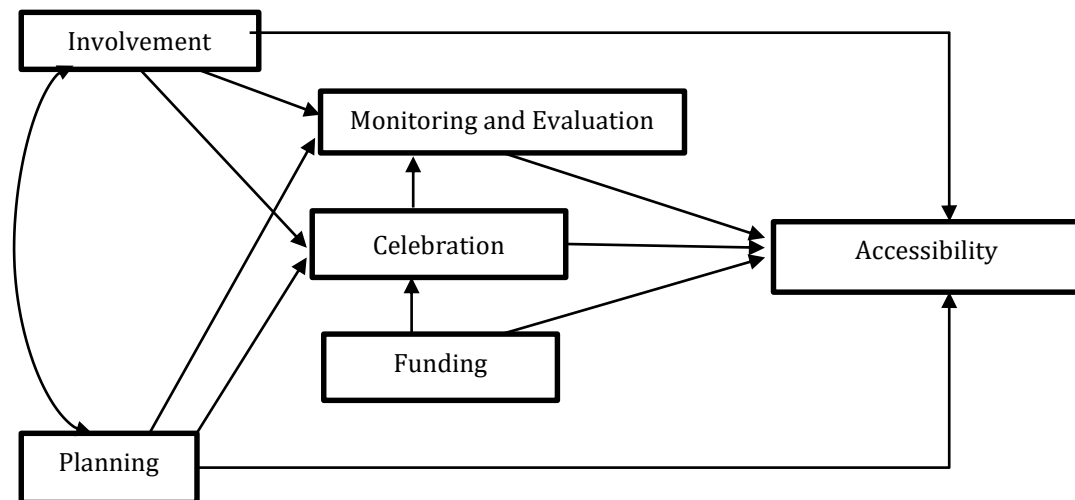
3. Funding from the private sector.	3.53	0.961	High
4. Funding from the community.	3.35	1.152	Moderate
5. Cost estimation available.	4.09	0.712	High
<b>Overall mean</b>	<b>4.10</b>	<b>0.332</b>	<b>High</b>

Table 2 shows that when considering each factor affecting the development of Phayao Learning City, seniors ranked 'planning' as the highest possible factor affecting building learning city followed by 'involvement', and 'accessibility'. 'Funding' was the least factor to affect building the learning city in the seniors' opinion.

### Causal Relationship Model

As for the causal relationship model, the factors that drive Phayao to be a city of lifelong learning were based on the UNESCO principles (UNESCO, 2017), including planning, involvement, accessibility, monitoring and evaluation, celebration, and funding.

From the literature review, concepts, theories, and related research, we found a key success factor that affects building Phayao Learning City is 'accessibility'. Therefore, a causal relationship model based on the hypothesis of the Phayao Learning City for lifelong learning (Figure 1).

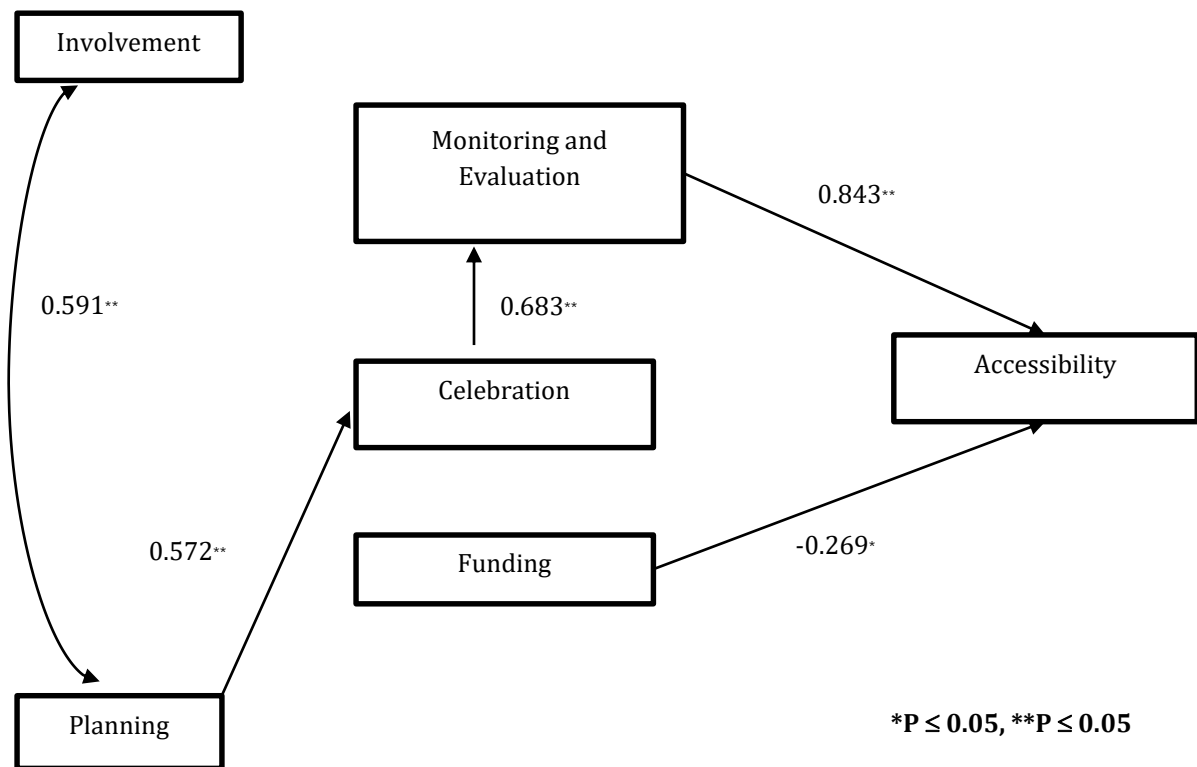


**Figure 1** The causal relationship model of Phayao Learning City

The hypothetical causal relationship model of Phayao Learning City revealed that the causal relationship model was consistent with the empirical data. The value of measure of goodness equals to 12.5737,  $df = 7$ , with the full model (FM) value of  $R^2_{FM} = 0.9120$ , and the value of over-identified model or OM are  $R^2_{OM} = 0.8598$ . We concluded that the model is suitable to explain the causal relationship of the process of building Phayao Learning City at a significance level of 0.05. The model showed that 85.89% of Phayao Learning City features are caused by the six UNESCO factors as DE and IE;

14.02% was caused by the other factors not considered in this present study.

This analysis can help form a diagram to show showing the direction of the causal relationship of each UNESCO's factor (Figure 2). 'Planning' was directly influenced by 'involvement' (DE = 0.591). 'Celebration' is directly influenced by planning factors (DE = 0.572) and was influenced indirectly by 'involvement' through 'planning' (IE = 0.338). 'Monitoring and evaluation' were directly affected by 'celebration' (DE = 0.683) and were indirectly affected by 'involvement' (IE = 0.231).



**Figure 2** A causal relationship model of the factors affecting Phayao Learning City.



**Table 3** The effect of ‘planning’, ‘involvement’, ‘monitoring and evaluation’, ‘celebration’, and ‘funding’ towards ‘accessibility’.

Independent variable	Direct influence (Direct Effect: DE)	Indirect influence (Indirect Effect: IE)	Total influence (Total Effect: TE)
‘Planning’	-	0.329	0.329
‘Involvement’	-	0.195	0.195
‘Monitoring and Evaluation’	0.843	-	0.843
‘Celebration’	-	0.576	0.576
‘Funding’	-0.269	-	-0.269

Learning City, ‘accessibility’ received IE from ‘planning’ (IE = 0.329), ‘involvement’ (IE = 0.195), and ‘celebration’ (IE = 0.576), while ‘monitoring and evaluation’ directly affect ‘accessibility’ at a high level (DE = 0.843). ‘Funding’ has shown a low direct negative influence (DE = -0.269) on accessing to learning resources. This means that ‘funding’ could be an obstacle in accessing learning resources.

### Interview Result

The results of the research revealed that among the six factors of UNESCO’s learning city, ‘accessibility’ and ‘involvement’ are the key success factor for building Phayao Learning City. The other factors are indirectly supported the factors mentioned above. Examples of the seniors’ opinions are below:

*Accessibility creates opportunity for everyone*

Easy access to learning resources exposes people to a variety of activities. As one person mentioned,

*“Accessibility is the factor that creates opportunity for seniors to access a wide range of knowledge. Providing learning resources for all genders and age groups where people can meet up continuously is very important. Learning media and qualified learning materials such as technology, books, and services should be provided in all learning platforms. Instructors should be experienced with expertise.”*

(Mrs. D)

There are many rhymes as underlined in Mrs. D’s answer that modify the theme of ‘accessibility’. This shows that *“accessibility creates opportunity for everyone.”*

Accessibility can be directly affected by public relations; therefore, people in and around Phayao Municipality area have ongoing activities. Mrs. E mentioned that,

*“ ‘Celebration’ can arouse public interest to use the learning area more frequently: Everyone can use the learning area for lifelong learning.”*

(Mrs. E)

*Community involvement creates a sense of belonging*

Seniors are the main users of learning resources in Phayao Learning City. They have a relatively strong will to participate in building the learning city especially in making a decision to choose what they want to learn. One of them noted that,

*“We see Phayao Learning City as an ongoing participatory working process. Besides having our free time doing activities and meeting each other, we should have power to make decisions on what to learn in order to create integration among our community and the city management team.”*

(Mrs. F)

It is obvious that seniors used the pronoun ‘we’ frequently: This signals they are parts of the community or the city. The phrase ‘should have power to make a decision. . .’ because the rhyme of the sentence indicates that the senior citizens have a strong desire to become involved in the working process of the learning city. The theme ‘we’ and the rhymes discussed can be interpreted that *‘Community involvement creates a sense of belonging’*.

## Discussion

This research analysed factors affecting the construction of Phayao Learning City. The criteria of UNESCO for learning city were used. Senior citizens in Phayao Municipality area were the subjects of this research. Both quantitative and qualitative research methods were conducted. The key findings showed that 'planning', 'involvement', and 'accessibility' are the key factors affecting the development of Phayao Learning City. A causal relationship model indicated that 'accessibility' is the main factor; 'celebration' directly influenced 'accessibility' at a high level (DE = 0.843). In contrast, 'funding' had a low direct negative effect (DE = -0.269) on accessing learning resources. 'Funding' is one of the obstacles in the development of Phayao Province as a UNESCO City of Lifelong Learning. The data from the interview showed that 'accessibility' and 'involvement' are key factors affecting the learning city.

Our results differ from previous work, which found that 'involvement' was a key factor in learning city development. However, this might be the cause for different results because the tools used to collect this research data are different from previous research. That is, this research uses the criteria of UNESCO's learning city as the main criteria while previous research such as that of Sajjasophon (2012) used a future foresight tool to analyse the scenario of a learning city model based on the lifelong learning concept for the development of Thai active aging.

Nasaree et al. (2014) reported five strategies as the main factors for building Ubon Ratchathani Municipality as a learning city: (1) Knowledge Development Strategy, (2) Learning Development Strategy, (3) Organizational Development Strategy, (4) Human Resource Development Strategy, and (5) Technology Development Strategy. Nasaree seem to be in the line with our study. Nasaree mentioned 'Knowledge Development Strategy' and 'Learning Development Strategy' as the important factors; these strategies are relevant to the importance of

'accessibility'. Moreover, the results are similar to other studies conducted in learning cities in Narkkong et al. (2016) who has analysed 16 learning cities in the UK, Australia, Canada, the Republic of Finland, and the Republic of Korea, etc. A key factor is 'involvement' in corresponding to the results from Butsaba (2013) using a Delphi Technique.

The direct and indirect effects of other factors upon 'Accessibility' in the Causal Relationship Model together with the interview results indicate that 'accessibility' and 'involvement' clearly showed that there are more than one factor affecting building a learning city. That is, in building a learning city, one needs a combination of the six UNESCO factors.

The seniors mentioned that 'accessibility creates opportunity for everyone' and 'community involvement creates a sense of belonging'. These conclusions concur with Edgerton et al. (2012), Ionela (2012), and Kaplan et al. (2014) who showed that learning city accessibility improves quality of life.

## Conclusion

The key factor affecting building Phayao Learning City is 'accessibility'. However, the other UNESCO's factors affecting building a learning city including 'planning', 'involvement', 'monitoring and evaluation', 'celebration', and 'funding' have both direct and indirect effect on 'accessibility' factor. That is, building a learning city needs a combination of all six factors; some factors have a large influence and others have a smaller impact.

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