

Effects of Self-directed Learning on Lifelong Learning Attitudes of Functional Literacy Facilitators

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Abstracts*

Lifelong learning concept is strongly mentioned in Cambodia Education. In 2019, the Ministry of Education, Youths, and Sport (MoEYS) has paid more attention to lifelong learning in Cambodia's Education 2030 Roadmap. However, the concept focuses more on learners, not the teachers/teachers. In this continuous process of social changes, individuals should be lifelong and self-directed learners to conquer their challenges and problems. In raising individuals as lifelong learners, teachers/facilitators play a significant role in establishing lifelong learning societies. Functional literacy facilitators get only 1 week of training on teaching before their classes start. Continuous learning is essential for functional literacy facilitators to keep developing both their daily and professional life.

This study aims: to investigate the effects of self-directed learning on lifelong learning attitudes on the aspect of inquiring mind, setting learning plan, learning skills, information literacy and belief in learning improve professional development among functional literacy facilitators.

The research uses quantitative method by employing a quasi-experimental design. The pre-test and post-test are employed to explore whether self-directed learning activities will foster lifelong learning attitudes of functional literacy facilitators in the five aspects with subject group consisting of 37 functional literacy facilitators who are working as teachers in functional literacy programs in Cambodia.

With one group paired sample t-test, the result indicates that the pre-test score of the participants' overall lifelong learning attitudes (mean=3.3475) is lower than the post-test (mean=4.2734) with $p=0.00$, which indicates that the significance was perfectly different. The result of the study reveals that self-directed learning activities positively affect lifelong learning attitudes and have positive impacts on the professional development of functional literacy facilitators

Keywords: Self-Directed Learning; Lifelong Learning Attitudes; Functional Literacy Facilitators

Introduction

Functional literacy program in Cambodia has come as a picture of an eight months course under the supervision and responsibility of Non-formal Education (NFE) (MoEYS, 2015:1). The course provides an opportunity to all learners who cannot read, write and calculate without racism. Functional literacy courses for Cambodian-Muslim communities, prisons, and factories are strongly motivated and supported (MoEYS, 2018:1). During February, preparations, organization, and training for facilitators take place. Typically, training for functional literacy facilitators or teachers takes place one week before they begin teaching. The

course is held annually from March to September and consists of three levels with a total of 290 hours. Teachers are required to instruct for a minimum of 10 hours weekly or 40 hours monthly. In Cambodia, the functional literacy course offers great flexibility, with scheduling options in the afternoon, late evening, or weekends based on mutual agreement between facilitators and learners. The course can be held at various locations, including facilitators' homes, learners' residences, pagodas, factory offices, prisons, school classrooms, other buildings, or even mosques. Upon completing the three levels within an 8-month period and passing the final exam, participants receive a certificate of recognition. These three levels are equivalent to grade 3 in the primary school level of formal education programs (MoEYS, 2015:1).

In Cambodia, facilitators from local communities serve as teachers in functional literacy classes. They are often literate youths, adults with primary education, or retired community teachers. Formal school teachers are not allowed to be facilitators, and due to limited qualified individuals, the situation is described as "Those who know more teach those who know less" resulting in limited opportunities for student improvement (Rosenbloom, 2004:3). Before starting a class, trainees must join a program to learn functional literacy, adult psychology, and teaching techniques for adults. However, the one-week training led by education administrators is insufficient for effective facilitation, particularly for inexperienced facilitators. Challenges include poor content design, lack of materials, and insufficient learner-centeredness (MoEYS, 2020:1). According to strategy 4.1.3 in Cambodian Education Roadmap 2030 on developing literacy stated that to improve the quality and relevance of literacy, post-literacy, and lifelong learning opportunity they must improve the quality and motivation of literacy facilitators/instructor through professional development, increased incentives and support (4.1.3b). Literacy educators will be trained based on national norm and standard (MoEYS, 2019:1). Teachers who are professionally competent, motivated and well-support professional can support learners for a high education.

Dunlap and Grabinger (2003: 6-25) indicated lifelong learning as a conscious group of learning to increase both individuals' life qualities and career development. In the continuously changing world, lifelong learning provides individuals with an opportunity to gain knowledge and competencies they need to be successful (Sharples, 2000: 177-193). The concept of self-directed learning had appeared at about the same time as Knowles's andragogy (Knowles, 1970:12). Andragogy and self-directed learning have become a big part of adult education and have had such an impact on practice (Merriam, 2001: 3-14). Self-directed learning entails individuals taking initiative and responsibility for their own learning. learners are free to set goals and define what is worth learning. Self-directed learning can be used both formal and non-formal (Knowles, 1975:3).

In this continuous process of social changes, individuals should be lifelong and self-directed learners to be able to conquer their challenges and problems (Bidokht & Assareh, 2011: 1446-1453). Continuing, career-long professional development is necessary for all teachers in order to keep pace with change and to review and renew their own knowledge, skills, and visions for good teaching (Day, 2002:1). There is no any studies focus on using self-directed learning to foster lifelong learning attitudes among functional literacy facilitators in Cambodia. Therefore, research is essential to investigate functional literacy teachers' attitudes on self-directed lifelong learning process and whether they develop positive attitudes toward lifelong learning and professional development.

Research Objectives

1. To investigate the effects of national capacity building using self-directed learning to promote lifelong learning attitudes
2. To describe benefits obtain from self-directed learning on professional development.

Research Methodology

This study used quasi-experimental design with one group of pre-test and post-test designs. Three months of self-directed learning activities were conducted with 37 participants hired by MoEYS and working as functional literacy facilitators in a functional literacy program.

Data collection

Self-directed learning processes by Knowles (1975 : 2) were employed with the group of participants. The steps are;

1. Climate setting, that is, creating an atmosphere of mutual respect and support
2. Diagnosing learning needs
3. Planning
4. Formulating learning goals
5. Identifying human and material resources for learning
6. Choosing and implementing appropriate learning strategies
7. Valuating learning outcomes.

At the beginning of every month, the participants had to diagnose their learning needs and goals and then plan their learning using a learning contract form. The learning goals were set to be short that could be achieved in one month. At the end of the month, the participants were called to come back together and share what they had learned according to their planning. After sharing what they had learned and reflecting, the participants started planning their new learning contract repeatedly for three months.

The basic of a learning contract for learners and instructors was used to follow in planning self-directed learning. By using self-directed learning with the learning contract, the learners set clear learning goals and ordered their learning topics by prioritizing the topic based on what was important and urgent first.

The lifelong Learning attitudes scale measures functional literacy facilitators' attitudes toward lifelong learning before and after the course. The pre-test and post-test were employed to explore either self-directed learning will foster lifelong learning attitudes of functional literacy facilitators in five aspects:

1. Inquiring mind to learn
2. Setting a learning plan
3. Learning skills
4. Information literacy
5. Belief in learning improve professional development.

Data analysis

The pre-test and post-test mean scores were analyzed on SPSS to compare the mean scores before and after the self-directed learning activities using a t-test. Weigh Index Average was employed to see the differences on belief in learning on professional development before and after.

Research Scope

The subject group consists of 37 functional literacy facilitators who were working as teachers in functional literacy programs in Tboung Khmum province, Cambodia. Among the 37 facilitators, 12 were females. Moreover, 2 functional literacy facilitators were teaching basic literacy to novices and monks in pagoda. 4 functional literacy facilitators were teaching basic literacy to prisoners in national correction centers and prisons. 8 facilitators were teaching basic literacy among Cambodian-Muslim communities. 1 functional literacy facilitator was teaching factory workers in the factory they are working for. 22 other facilitators are teaching basic literacy in communities. Self-directed learning activities were conducted among 37 functional literacy facilitators over three months. The pre-test and post-test were employed to explore either self-directed learning will foster lifelong learning attitudes of functional literacy facilitators in five aspects: (1) Inquiring mind to learn; (2) Setting a learning plan; (3) Learning skills; (4) Information literacy; (5) Belief in learning would improve professional development.

Research Findings

Table 1 Paired sample test of lifelong learning attitudes

Paired Differences	(Pre-test)		(Post-test)		T	P
	\bar{x}	S.D	\bar{x}	S.D		
Inquiring Mind	3.3363	.69856	4.2823	.39683	-11.975	.000
Setting Learning Plan	3.1441	.56405	4.2432	.36556	-13.231	.000
Learning Skills	3.1441	.59551	4.2432	.34226	-12.768	.000
Information Literacy	3.2595	.58853	4.2054	.39012	-10.079	.000
Belief in Learning Improve Professional Development	3.6486	.55022	4.2734	.31997	-8.420	.000
Overall	3.3475	.55022	4.2734	.31997	-14.662	.000

According to Table 1, Paired sample t-test indicated that the pre-test score of the participants' inquiring mind to learn (mean=3.3363) was lower than the post-test (mean=4.2823)—furthermore, $p=0.00$, which indicated that the significance was perfectly different. The statistical analysis results using the paired sample t-test show that the post-test scores of inquiring minds were significantly different because their level was lower than 0.05. The result indicated that self-directed learning positively affected lifelong learning attitudes in the aspect of inquiring mind to learn.

Based on the paired sample t-test, the pre-test score of the participants' setting learning plan (mean=3.3363) was lower than the post-test (mean=4.2823). And $p=0.00$, which revealed

that the significance was perfectly different. The statistical analysis results using the paired sample t-test indicate that the post-test scores were significantly different because their level was lower than 0.05. The result demonstrates that self-directed learning had a positive effect on lifelong learning attitudes in the aspect of setting a learning plan.

In addition, the pre-test score of the participants' learning skills (mean=3.1441) was lower than the post-test (mean=4.2432). Moreover, $p=0.00$, which indicated that the significance was perfectly different. The statistical analysis results using the paired sample t-test show that the post-test scores were significantly different because their level was lower than 0.05. The result verifies that self-directed learning positively affected lifelong learning attitudes in the aspect of learning skills.

Moreover, the pre-test score of the participants' information literacy (mean=3.2595) was lower than the post-test (mean=4.2054). And $p=0.00$, which indicated that the significance was perfectly different. The statistical analysis results using the paired sample t-test show that the post-test scores were significantly different because their level is lower than 0.05. The result proves that self-directed learning had a positive effect on lifelong learning attitudes in the aspect of information literacy.

Last but not least, the pre-test score of the participants' belief in learning improves professional development (mean=3.6486) was lower than the post-test (mean=4.2734). And $p=0.00$, which indicated that the significance was perfectly different. The statistical analysis results using the paired sample t-test show that the post-test scores were significantly different because their level was lower than 0.05. The result validates that self-directed learning had a positive effect on lifelong learning attitudes in the aspect of the belief that learning would improve professional development.

The results in the above table verified that the participants' post-test mean score is 4.2734 (S.D = .31997) and the pre-test mean score is 3.3475 (S.D = .55022). To clarify, the post-test mean score of the participants is higher than their pre-test mean score at the significant level of P lower than 0.05.

All results illustrate that self-directed learning fostered lifelong learning attitudes at the significant level of P lower than 0.05. The mean score of the pre-test is 3.3475 and the mean score of post-test is 4.2734. These results indicated that most participants' post-test scores increased. Besides, the results also revealed that self-directed learning significantly enhanced all five aspects of lifelong learning attitudes.

Table 2 Benefits obtain from self-directed learning on professional development.

Attributes	Pre-test			Post-test			P-value
	WAI	AO	Std.	WAI	AO	Std.	
Learning makes individuals' lives changed	0.78	M	0.14	0.93	SA	0.11	0.000
Exchanging information with colleagues in learning a new subject increase success	0.74	M	0.17	0.86	SA	0.12	0.000
Participation to professional development activities increases the professional creativity	0.75	M	0.19	0.88	SA	0.13	0.003

Forming a bridge between life and knowledge is essential for professional development	0.74	M	0.18	0.86	SA	0.12	0.000
Individuals should have a conscience of the constant change of information in their career field	0.70	M	0.18	0.86	SA	0.12	0.001
Research skills increases professional development	0.68	M	0.19	0.85	SA	0.14	0.004

Note: Weight Average Index (WAI); Overall Assessment (OA), five-point scale index; 0 – 0.20 = Strongly Disagree (SD); 0.21 – 0.40 = Disagree (D); 0.41 – 0.60 = Moderate (M); 0.61 – 0.80 = Agree (A); 0.81 – 1 = Strong Agree (SA).

According to Table 2, self-directed learning significantly increased functional literacy facilitators' beliefs in learning benefits professional development. Before the self-directed learning activities, learners' beliefs in learning to improve professional development were moderate. However, after getting involved in self-directed learning, they firmly believe that continuing learning benefits their professional development. They believe that learning improves their professional development and firmly believe that learning changes their lives.

Through self-directed learning, the participants were undoubtedly motivated, improving their confidence, ability, and self-efficacy. Functional literacy facilitators applied what they learned through self-directed learning to their teaching and living.

Additionally, through self-directed learning, they could learn more on topics relevant to teaching, such as ways to do group discussions, role plays, knowledge in ITC, storytelling, how to write lesson plans, and how to do assessments among students etc.

In their daily lives, the learners learn many subjects they need to use and apply immediately, such as the English language, how to use a computer and find information, fix things, take good care of their health, and work management etc.

Besides, their belief in exchanging information with colleagues in learning a new subject increase success would lead them to have a conscience of the constant change of information in their career field. Through sharing what they had learned with other learners, learners stated that they learned more information and knowledge on the topics from the sharing and discussion.

Eventually, they stated that research skills are also essential to increase professional development. Research skills are essential components of lifelong learning. In today's rapidly changing world, it is more important than ever for individuals to continuously expand their knowledge and skills. Strong research abilities enable functional literacy facilitators to identify, access, assess and utilize information effectively, improving their decision-making process and enhancing their overall academic and professional performance.

In sum, functional literacy facilitators firmly concurred that learning benefits their professional growth. Functional literacy facilitators benefit from self-directed learning, improving their confidence, ability, and self-efficacy. They apply this knowledge to teaching and their daily lives, covering topics such as group discussions, ITC, lesson planning, and assessments. Exchanging information with colleagues enhances learning, and they recognize the importance of research skills for professional development. Lifelong learning is seen as essential for both professional and personal growth.

Conclusion

The present study attempted to investigate the effects of self-directed learning to foster lifelong learning attitudes of functional literacy facilitators. The study demonstrated that self-directed learning possibly influence the attitudes of functional literacy facilitators toward lifelong learning on inquiring mind to learn new things, setting their own clear and concise learning goals, knowledge in using media and technology to support their learning, beware of their learning style and beliefs that lifelong learning benefits their professional development as well as their personal lives.

With self-directed learning activities, learners found their topics of interest and motivated them to learn from one topic to another. Similarly, some learners started planning their short-term and long-term learning plans for the benefit of their profession. On top of that, some learners raised that being aware of their learning styles was of service to their learning to become less stressed and frustrated. Some learners appeared to seek support from mentors to figure out their own learning styles. In the bargain, learners found that knowledge and skill in using ICT to find information were very important to their learning. By using self-directed learning with the learning contract, the learners can easily set clear learning goals and order their learning topics by prioritizing them based on what is important and urgent. On top of that, by choosing their own learning resources and strategies, learners are heavily involved in their own learning.

Functional literacy facilitators strongly agree with the belief that learning benefits professional development. They practically applied what they learned with self-directed learning to their profession and everyday lives. It made them feel more confident to make their class more attractive. Individual learners learned much more about the topic from other learners' experiences. By seeing the benefits of learning in their profession, learners stayed motivated and curious to keep improving their professional development. They participated in more workshops, conferences, courses, and other learning activities. Learners in this study strongly believed that lifelong learning benefits their professional and personal development and they are motivated to continue learning.

Through self-directed learning, participants gained motivation, confidence, and improved skills, applying their knowledge to teaching and daily life activities. They learned various teaching methods, developed their research skills, and benefited from sharing knowledge with colleagues. Ultimately, lifelong learning positively impacted their professional and personal development.

Discussion

In this study, self-directed learning helped learners to find out their learning needs, plan their short-term and long-term learning plans and have high motivation to keep learning for life long. Moreover, learners also developed ICT and learning skills throughout the self-directed learning activities. Through self-directed learning activities, learners had fostered their lifelong learning attitudes. The study also indicated that lifelong learning and self-directed learning helped functional literacy facilitators to be more confident in class and improved their teaching performance and living.

A few studies also indicated that self-directed learning influences individuals' lifelong learning. Li, Paterniti, and West (2010: 1229-1236) found that self-directed learning skills linked with practices provided lifelong learning skills for physicians to produce positive patient care outcomes. Boyer, Edmondson, Artis, and Fleming (2014; 20-32) suggested that self-directed learning is a tool for lifelong learning. In addition, through self-directed learning, the participants were undoubtedly motivated, improving their confidence, ability, and self-efficacy. His study reported that learners remarked that the self-directed learning project improved performance at work and showed that the self-directed learning project improved performance. Besides, Murray (2015:1) revealed that Self-directed learning influences individuals to engage in lifelong learning.

Engaging in self-directed learning activities enables adult learners to acquire and develop the appropriate self-directed and self-regulatory skills necessary for lifelong learning and self-development. Self-directed learning compels adult learners to engage in lifelong learning pursuits by developing the many competencies that will increase the capacity and capability of individuals to apply their knowledge and skills in solving problems. In this way, implementing self-directed learning may help individuals improve their self-efficacy.

Recommendations

1. Recommendations for Ministry of Education

Ministry of Education Youth and Sport in Cambodia should consider using self-directed learning in teachers' professional development programs or training in order to promote lifelong learning. Integrating self-directed learning into national teacher development programs has the potential to create a more dynamic, innovative, and effective educational system. By empowering teachers through customized professional growth opportunities that they are actively engaged in, the quality of education can be significantly improved, benefiting both educators and students alike. To ensure the effectiveness of self-directed learning in a national teacher development program, steps should include providing educators with adequate resources (e.g., access to conferences, webinars, books or articles), facilitating mentorship opportunities, offering flexible scheduling options for professional development activities, and incorporating regular assessment and feedback mechanisms for continuous improvement.

2. Recommendation for adult educators/trainers

To make self-directed learning effective, some learners need support for self-directed learning activities, and some need to consult with educators to determine the methods and resources that best fit their learning.

Firstly, it is crucial to involve learners in setting their own learning resources and strategies that suit them according to their real circumstances and situation. Involve learners in choosing learning resources and strategies to find the most appropriate resources to fit their individual learning styles and the overall learning objective. Self-directed learners should be able to choose the learning method that suits their individual learning styles (Murad, Coto-Yglesias, Varkey, Prokop, & Murad, 2010:11). Therefore, learners should receive support and resources when implementing self-directed learning.

Secondly, regular support during the process of learning is required to keep learners motivated and help them to discuss any matters that might happen during the process. Similarly, Grow (1991: 125-149) mentioned that regular supporting to learners will help learners to find their path. Learners should also be encouraged to seek feedback from their peers

and their facilitators and understand that self-directed does not mean learning in isolation. Learners need to be motivated to complete the project. Identifying learning needs was one of the essential processes in self-directed learning to figure out the important and urgent subjects to learn according to the real situation.

Third, helping self-directed learners to diagnose their learning needs is an essential step. SWOT analysis is a great strategy to help learners plan their learning needs and goals. SWOT analysis were used to identify the need of learning of functional literacy facilitators by:

- Strength: personal attitudes, motivation, or competences to help learners achieve their goal
- Weakness: aspects which could interfere with learners' goals or potentially be holding learners back
- Opportunity: chances, resources, or circumstances used to help learners' through learning journey
- Threat: obstacles or restrictions that hinder taking part in learning

Forth, utilizing various resources such as technological platforms, extensive literature, guidance from experienced mentors, acquiring essential learning techniques, and accessing diverse information sources can significantly contribute to the success of individuals engaging in self-directed learning.

Finally, to create a climate of trust and respect in a learning environment, start by being transparent, genuine, and inclusive. Encourage open communication, respect learners' experiences, and demonstrate emotional intelligence. Ensure confidentiality and take the time to know participants' backgrounds, motivations, and goals.

3. Recommendations for future research

The study was mainly based on the attitudes of functional literacy facilitators toward lifelong learning, which is in the field of non-formal education. After that, future studies should be:

- Study on lifelong learning characteristics of public school teachers (in the field of formal education) at primary, secondary and high school levels.
- Besides, the study was quasi-experimental research, and future studies should be quantitative surveys with a bigger number (not less than 300) of participants. Qualitative research is recommended to study learners' perceptions of using a self-directed learning approach to enhance their professional development and lifelong learning.

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