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Policy-Driven for Lifelong Learning and Its Effects: Experiences of Working Adults in Taiwan

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Since the government enacted the "Lifelong Learning Act" in 2002, Taiwanese working adults consider lifelong learning as a better route to increase their employability or competitiveness at work. This study analyzed the survey on adults administered by the Ministry of Education in Taiwan in 2008, and statistics analysis showed a close relationship of gender, SES (socio-economic status) and learning experiences of working adults. Working women in higher SES groups have shown more participating in lifelong learning. The key factor impacts on working women participating in lifelong learning depends on their family responsibilities. Men, on the other hand, had limited their participating, due to work-related reasons and less desire.

Keywords: working adults, lifelong learning, policy implementation

Introduction

Lifelong learning refers to the meaningful learning activities, including standardized learning, non-standardized learning, as well as informal learning, in an individual's life within different living environments. The goal, depending on the learner's knowledge, openness, skills and abilities, would enhance the individual's career development and life transitions, as well as the ability to adapt innovatively. This in turn contributes to societal advancement and the country's development (Wu, 2005). Generally, the learning ability of its inhabitants affects the country's competitiveness on the global scene. Hence, developing lifelong learning programs in many countries has become a new focus to enhance the adult competencies.

In the 1990s, the world witnessed the impact of globalization, the effects of aging society and the barrage of emerging information technology. It was only then that many countries started to focus on lifelong learning and legislation was introduced to ensure the implementation of lifelong learning (Jarvis, 2007; Kang, 2007). The purposes of this study are to analyze the working adults participating in lifelong learning and explore the effects of the policy-driven programs in Taiwan. For theses purposes, this study proposes the following research questions:

(1) What are the different among the working adults participating in lifelong learning?
(2) What differences do the working adults select learning programs?
(3) What kinds of reasons for the working adults did not participating in the lifelong learning programs?

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Related Literature and Theoretical Framework

Policy Development in Lifelong Learning

An old Chinese saying says that one is never too old/late to learn, and there is no end to learning. This view is accepted by most people, and there is public demand for lifelong learning in Taiwan. In 1998, the Taiwan's government published the white paper, called *Towards a Learning Society*. In 2001, the government launched the legislative process for the "Lifelong Learning Act" and announced its implementation in 2002. In the act, "lifelong learning" means that all learning activity, whether formal or informal, undertaken throughout life. In this context, the definition of lifelong learning is that all formal or informal learning activity which people participates, undertaken through life, with the aim of improving their knowledge, skills and competence.

Until nowadays, some programs of lifelong learning have been practiced, but there is still an enlarging gap between policy and its practices. Besides, the adult education policy, it should be paid more attentions to how to increase the participation of lifelong learning that is significant related to attitudes (Blunt & Yang, 2002). According to this view, the lifelong learning policy should be practiced equally for different groups. The description of equity is that expenses and benefits equally distributed to different groups, such as men and women, or different social economic groups. Therefore, the government needs to provide equal opportunities for different social groups to participate in lifelong learning.

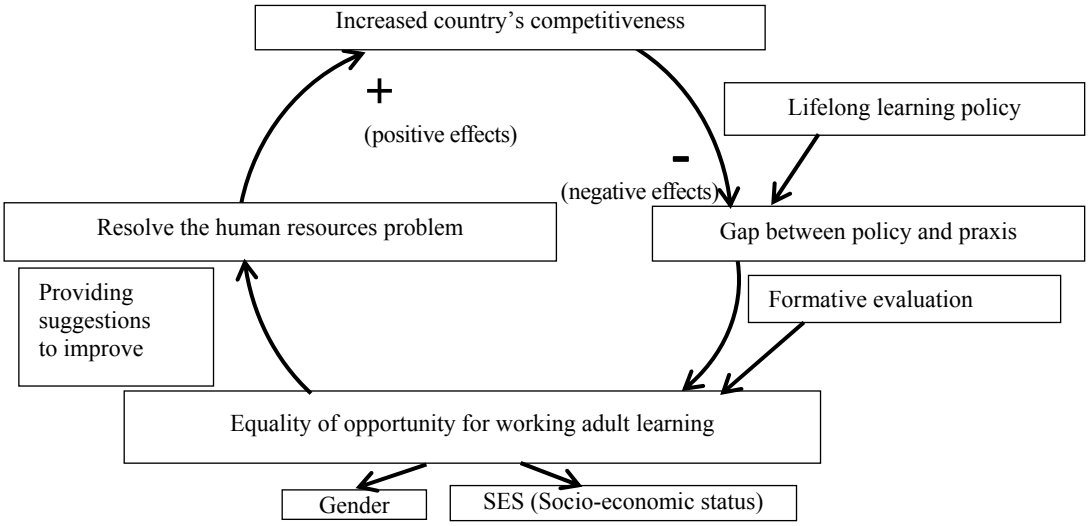

Figure 1. Theoretical framework for working adults participating in lifelong learning.

Theoretical Framework of Lifelong Learning

Figure 1 presents a possible theoretical structure for the adult participating in lifelong learning based on the previous discussion. The importance of lifelong learning has been proposed since 1960s, and the Taiwanese government has been paying more attention to this issue. However, there is a gap between the policy document and its practice. It reveals that the policy-makers should focus on providing equal opportunity for adults to participate the lifelong learning. In this framework, formative evaluation will play an important role in reviewing the practices of lifelong learning. When the policy distributes the learning resources to different social groups effectively, it could diminish the gap of lifelong learning. The related treatments by different gender and SES (socio-economic status) groups are often discussed in literatures (Bolhuis, 2003; Bryans, 2001;

Gouthro, 2007; Jarvis, 2007; Lind, 2006; Merriam, Caffarella, & Baumgartner, 2007; Moen, Kelly, & Magennis, 2009; Nesbit, 2006; Porfeli & Vondracek, 2009; Rogers, 2006; World Bank, 2005, 2007). This study focuses on the effects of lifelong learning programs and is to analyze the participation by the gender and SES groups.

Method

Data Collection

The adults in workplace refer to those who were above 25 years old and below 54 years old. The relevant 66.70% of the working adults in the database was extracted according to the age-group, it is 3,101 valued samples in this study. It reveals that the sampling error margin is lower than 3% at a confidence level of 95%.

According to the Annual Report by the Ministry of Interior of Taiwan, the population of working adults ranging in age from 25 to 54 was 9,310,093. Based on the gender distribution, Chi-square test results showed a statistically significant difference ($p < 0.001$). It means the gender distribution in the sample is different from that of the population. Therefore, the samples need to be weighted to facilitate statistical explanation, as shown in Table 1. This study employed post-stratification weighting to calculate the gender values and analyzed the derived figures through statistical means. The equation is as follows:

$$W_i = \frac{N_i}{n_i} \times \frac{n}{N}$$

W_i: the weight value of group i; N_i: the total value of the ith group in the population; N: the total value of the population; n_i: the number of valid samples in group i; and n: the total value of the samples.

Table 1

Gender Distribution in the Samples and the Population

Variables	Classification	Samples		Population (25-54 years old)		χ^2
		Frequency	Percentage (%)	Frequency	Percentage (%)	
Gender	Men	1,238	39.92	5,234,134	56.22	334.635***
	Women	1,863	60.08	4,075,959	43.78	
Total		3,101	100	9,310,093	100	

Note. $^{***}p < 0.001$.

Data Transformation

SES includes educational background, occupation and income (Ganzeboom & Treiman, 1996). This study applied data about educational background, occupation and personal income from the database. Educational background and occupation in the database were nominal scale. In order to facilitate statistical analysis, this study transformed the above two variables, educational attainment and occupation, into education index and career index. The transformation process was based on the ISCED (International Standard Classification of Education) proposed by the OECD (Organization for Economic Cooperation and Development) (1999). This study applied the two steps cluster analysis. The education index, the career index and personal income were analyzed, and the results of the analysis were categorized into three SES groups, which are named as high, middle, and low SES groups.

Method of Analysis

This study adopted SPSS (statistical package for the social sciences) Version 15.0 for Windows to conduct

logistic regression analysis and χ^2 testing. The logistic regression model was used to analyze the relation of gender and SES, with regards to lifelong learning experiences. The χ^2 model was used to analyze the differences of learning program selection by working adults from different gender groups and SES groups. It was also analyzed the reasons and differences among those who did not participate in any programs. The framework of analysis is shown in Figure 2.

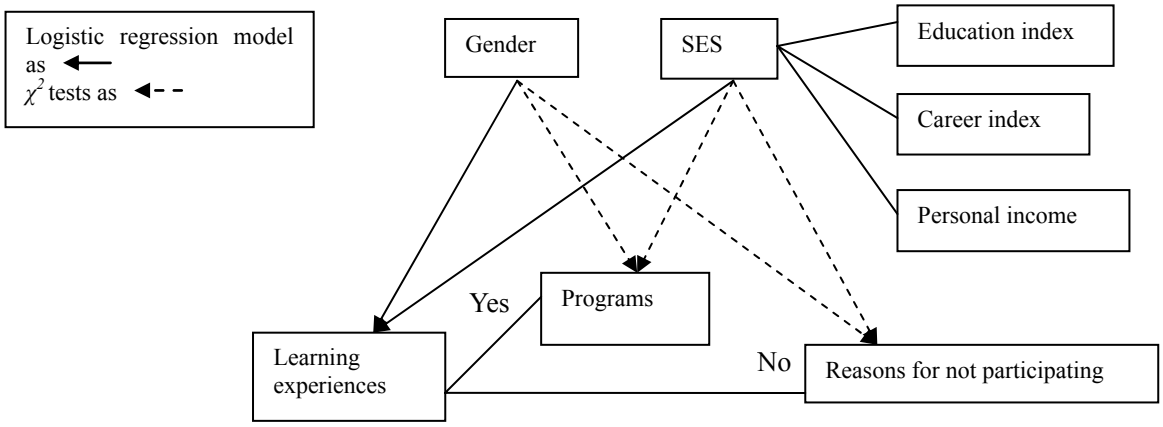

Figure 2. A framework of analysis.

Gender (χ_{gen}) and SES (χ_{ses}) were the independent variables in the logistic regression model. The logistic regression model is as follows:

$$\log \frac{p}{1-p} = \alpha + \beta_1 \chi_{gen} + \beta_2 \chi_{ses} \tag{1}$$

p refers to lifelong learning experience probability.

The post-comparison method of the χ^2 tests (posteriori comparison) was based on the comparison of adjusted residual, 1.96 was used as the 0.05 significance level and 2.58 was used as the 0.01 significance level, while 3.30 was used as the 0.001 significance level (Haberman, 1978).

Results

According to the purposes of this study, the results revealed the relationships of gender, SES groups and working adults participating in lifelong learning programs. Their program selections and the reasons for not participating are analyzed and showed in the following sections.

Explaining the Equal Participation by Different Groups of Working Adults

There were 1,068 adults, about 34.4% of the cases in this study, whose ages of 25 to 54 years old indicate that they had participated in lifelong learning programs. The other 2,033 adults, about 65.6%, did not participate in any programs. Logistic regression analysis was conducted by using the participation in lifelong learning as the dependent variable, gender and SES groups as the independent variables. The model is shown as fellows:

$$\log \frac{p}{1-p} = -0.715 + 0.941\chi_{gen} + 0.564\chi_{ses(1)} + 1.552\chi_{ses(2)}$$

χ_{gen} refers to men; χ_{ses} refers to low SES; $\chi_{ses(1)}$ refers to middle SES; $\chi_{ses(2)}$ refers to high SES; only the significant level variable value β is noted.

The results of the analysis indicated that the model was suitable, where the independent variables of the

gender and socio-economic groups indicated statistical significance. The working women showed 2.63 times participating in lifelong learning programs than the men did. The middle and high SES participants had more learning experiences, which were respectively 1.758 and 4.723 times than the lower SES group did. The results list in Table 2.

Table 2

Logistic Regression Models and Their Coefficients

Variables	Coefficients			Model		
	β	Exp (β)	Wald	-2LL	HL	Percentage correct
Gender	0.941	2.563	101.846***	2877.720	1.339	65.9%
SES	1.000		166.971***			
SES (1)	0.564	1.758	24.299***			
SES (2)	1.552	4.723	156.284***			

Notes. -2LL as-2 log likelihood; HL as Hosmer-Lemeshow goodness-of-fit statistic; SES (1) refers to middle SES, SES (2) refers to high SES; $^{***}p < 0.001$.

Selecting Lifelong Learning Programs

Working women, in middle and high SES, have revealed more preferred to participate in lifelong learning programs. The results showed that different gender and SES groups were the significant variables that are related to the choices in learning activities in terms of professional development courses, leisure related courses and certification courses. Among 1,068 working adults who had lifelong learning experiences, the result showed that working adults preferred to participate in professional development courses (49.10%-54.20%), and then leisure related courses (19.23%-24.30%), certification courses (17.84%-18.16%) and accredited programs (8.41%-8.46%).

It was shown that there were significant differences between men and women participating in professional development courses and leisure related courses. Men preferred professional development courses, while women preferred leisure related courses. Among working adults in high SES group, their program selections tended to the professional development purpose and less for certification and leisure related courses. Those who in low SES group tended to choose leisure related courses over professional development courses. The results are shown in Table 3.

Table 3

Crosstabs Analysis of Program Selections

Programs	Categories	Gender			SES			
		Women	Men	Total (%)	Low	Middle	High	Total (%)
Professional development courses	Count	322	278	600	89	202	270	561
	adjusted residual	-4.192***	4.192***	(49.10)	-2.004*	-1.692	3.214**	(54.20)
Leisure related courses	Count	202	95	297	48	85	66	199
	adjusted residual	3.374***	-3.374***	(24.30)	2.469*	1.406	-3.295**	(19.23)
Certification courses	Count	133	85	218	38	81	69	188
	adjusted residual	0.449	-0.449	(17.84)	0.845	1.474	-2.101*	(18.16)
Accredited programs	Count	72	35	107	12	29	46	87
	adjusted residual	1.685	-1.685	(8.76)	-1.083	-1.007	1.828	(8.41)
χ^2		20.319***			21.743***			

Notes. The frequency of SES excluded the unresponsive cases; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

Reasons for Not Participating

"Lack of time" indicated by 53% of the working adults, it was the most serious issue challenging the policy implementation. Besides, adults indicated another three reasons for not participating in lifelong learning are work limitations, overwhelming family responsibilities, and no desire for learning. These three reasons had shown significant differences by gender. According to the analysis, many working women indicated that the overwhelming family responsibilities were the reason to block them to participate in lifelong learning programs. On the other hand, men indicated their work-related limitations and lack of desire as the other reasons for not participating in lifelong learning programs. The results of this study are shown in Table 4.

Table 4

The Results of Program Selections and the Reasons for Not Participating

Variables	Categories	Gender		SES			
		Women	Men	Low	Middle	High	
Experiences		✓ (2.563)			✓ (1.758)	✓ (4.723)	
Learning purposes	For professional development	↓	↑	↓		↑	More adults prefer to choose
	For leisure related courses	↑	↓	↑		↓	
	For certification courses					↓	
Reasons for not participating	Lack of time	↑	↑				Over 50% adults choose, there is no difference in gender
	No desire	↓	↑				
	Work limitations	↓	↑				
	Overwhelming family responsibilities	↑	↓				

Notes. ✓ The marks given indicates higher level of relation; () indicates times of refer variable; ↑ as significant higher; ↓ as significant lower.

Conclusions

This results of this study showed that working adults participating in lifelong learning were directly related to their gender, SES, work-related causes and family limitations. The gender and SES are closely related to adults participating in lifelong learning programs. The results indicated that many men in workplace did not want to participate in lifelong learning programs. The suggestions are going to policy-makers to provide adults more feasible lifelong learning programs to encourage their participations, especially for the men in workplace.

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