
The Effects of Background Variables and Learning Engagement of Adult Learners on Their Capacity for Self-Directed Learning

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Abstract

The purpose of this study was to investigate the effects of background variables and learning engagement of adult learners on their capacity for self-directed learning. The subjects of this study were 180 adult participants in a training program for the development of core occupational competencies of small and medium enterprises. The subjects' ages ranged from their 20s to their 50s. Of the surveys administered to the participants, a total of 150 responses were used for the analysis in this study. The key findings of this study may be summarized as follows. First, the background variables and learning engagement of adult learners significantly influenced their capacity for self-directed learning. Adult learners who were passionate about learning and had clearly defined goals exhibited an improved capacity for self-directed learning. Secondly, the age and years of experience of adult learners were found to have a significant effect on the cognitive aspects of the capacity for self-directed learning. Third, among the aspects of learning engagement, cognitive engagement and emotional engagement were found to have a significant influence on the capacity for self-directed learning. When the adult learners realized that what they were learning was meaningful, their immersion in learning increased, resulting in self-directed learning. These results show that learners who have nurtured a self-directed attitude toward learning hold an advantage in the acquisition of new knowledge and technological skills, and that self-directed learning is a crucial ability in the modern era. This implies that systematic efforts should be made at the national level to boost self-directedness by enhancing the capacity for self-directed learning.

Keywords: adult learner, background variables, learning engagement, self-directed learning ability

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Introduction

As Korean society transitions to a knowledge-based society of the 21st century, it is currently undergoing rapid changes in various fields. Consequently, the practice of lifelong learning has become important as a means of adjusting to such rapid changes. The capacity for self-directed learning, where learners conduct learning according to their own schedule and under their own control based on voluntariness and autonomy, is a crucial capability for modern people (Ha, 2011). Furthermore, businesses consider the ability to engage in problem-solving in response to changing situations as a necessary core competency of workers. As such, they have demanded the capacity for self-direction in their workers (Kim, 2005). Previous studies have found that workers' capacity for self-directed learning serves as an important basis for acquiring such self-directedness. Lee (2001) found that adult learners' capacity for self-directed learning is formed in an autonomous and proactive manner depending on needs and demands.

Previous studies on the capacity for self-directed learning have been steadily conducted in Korea and abroad. Cha (1999) found that the capacity for self-directed learning a process wherein the learner takes the initiative in acquiring the human and material resources required for learning, while selecting and evaluating an appropriate learning strategy improved the efficacy of learning and was conducive to the learner's social survival. The capacity for self-directed learning is necessary not only to improve the efficacy of learning, but also for the social survival of the learner as an individual. Important here is the learning process wherein one ceases to be a passive recipient of information as in the past, instead becoming a proactive recipient and user of information (Jang & Hong, 2011). Among foreign studies on the capacity for self-directed learning, Knowles (1975) stated that the capacity for self-directed learning allows learners to assess their own learning needs, set up learning goals, and conduct learning using the human and material resources that one has acquired, after which the learner may also conduct self-evaluations. Bae (2012) defined the capacity for self-directed learning as involvement in an activity where a self-directed learner is motivated through passion and interest for learning, thus steadily engaging in learning by fostering a conducive environment while using and managing the human and material resources required for learning, after which one evaluates the outcomes of one's own learning.

Here, background variables represent events or environmental factors that surround an individual these include differentiated information that can uniquely identify individuals, such as gender, age, level of education, university major, work experience, work title, and region of birth. The background variables used in Ryu (2009) included gender, year of school, area of study, and region of birth. In another study, Yoo and

Kang (2012) selected a model explaining learners' participation through class environment and other learner factors, and the structural relationship between these variables in the selected model was verified. In a study of kindergarten teachers, Kim (2011) used background variables, such as age, level of education, work experience, and whether the kindergarten was public or privately operated. In a study of university students, Lee and Lee (2018) used background variables, such as the year of schooling and major, to examine how the capacity for self-directed learning varied depending on the individual characteristics of university students.

Besides background variables, another variable that will be considered in this study is that of learning engagement. Learning engagement refers to the quality of effort (Coates, 2006) exerted by the learner to achieve a desired learning outcome, or the degree of the learner's concentration, interest, investment, or effort over the course of the learning process. Although this concept is defined differently by different researchers, engagement may be generally considered as comprising three components: behavioral engagement, cognitive engagement, and emotional engagement (Handelsman et al., 2005, Reeve, Jang, Carrell, Jeon, & Barch, 2004). High levels of learning engagement were found to be significantly related to performance measures, such as GPA, in-depth learning, and satisfaction levels (Woo & Kim, 2014). Commonly, learning ability is emphasized in order to cope with rapidly changing business environments and to gain competitive advantages. In addition, company CEOs are increasingly emphasizing self-directed learning, which has resulted in an increase in the cost of education for employees (Cho & Kwon, 2005). Adult education emphasizes the importance of self-directed learning in personal growth and development. However, business education emphasizes self-directed learners' interaction with the environment, sharing information with others, and learning through cooperation. In other words, the greater the number of members of with higher self-directed learning ability within an organization, the more diverse self-directed learning can be performed, and the creation, sharing and transfer of knowledge can be activated through self-directed learning activities (Guglielmino & Guglielmino, 2001). However, the study environment was assessed as having a positive influence (Yoo & Kang, 2012). In their study of university students, Lee and Lee (2018) found that students who had participated in online self-directed learning subsequently exhibited an improved capacity for self-directed learning as a whole. Therefore, the purpose of this study was to examine how background variables and learning engagement of adult learners affect their capacity for self-directed learning, thus leading to improved learning outcomes.

Research questions were as follows:

Question 1: Do background variables and learning engagement of adult learners affect their capacity for self-directed learning?

- Question 2: Does the capacity for self-directed learning vary depending on background variables?
- Question 3: Is there a significant correlation between learning engagement and the capacity for self-directed learning?

Method

Subjects

The subjects analyzed in this study were participants in a training program for the development of core occupational competencies of small and mid-sized enterprises (SME). A survey was administered to these participants. Since 2006, the Korea Occupational Safety and Health Agency has selected and provided high quality education programs for employers and employees with regard to companies afforded priority support under Article 12 of the Enforcement Decree of the Employment Insurance Act, and it has encouraged investment in human resources development. The education provided to learners is composed of two parts: business division (strategic management, personnel, organization, HRD, sales, marketing, distribution, logistics, accounting, leadership), and technical division (production management, quality control, production technology). Companies participating in the SMEs Core Competency Development Program strive to provide employees with diverse learning opportunities through relatively dynamic HRD activities. Most SMEs employees work in poor environments, and this program is expected to provide them with significant educational benefits. Most of the subjects participated voluntarily, in the training program, motivated by an individual desire for learning and improving their expertise. The survey itself was conducted between March and April, 2015. A total of 180 copies of the survey were administered, and 150 responses were used for the analysis in this study (See Table 1).

Table 1. Demographic characteristics of subjects

		Frequency	%
Age	20s	56	37.3
	30s	56	37.3
	40s	29	19.3
	50s	9	6
Educational level	High school	8	5.3
	College	26	17.3
	Undergraduate	100	66.7

	Graduate	15	10.0
	Other	1	.7
Reasons for participation in education	Expansion of knowledge	59	39.3
	To fill the training time	9	6
	Help your work	59	39.3
	Help for employment, promotion, retirement	5	3.3
	Compulsory participation	16	10.7

Instruments

Measurement instrument for learning engagement

The measurement instrument proposed by Yoo and Kang (2012) was used to measure learning engagement. This instrument includes a total of 18 items, comprising cognitive engagement, emotional engagement, and behavioral engagement. If the Cronbach's α value is .7 or higher, the internal consistency of the measurement tools in the factor is considered to be high. Most of the items showed a high internal consistency (See Table 2). The measurement scale used was a 5-point Likert scale.

Table 2. Reliability analysis of learning engagement

	Sub-factors	Item number	Number of items	Cronbach's α
Learning engagement	Cognitive	1-9	9	.829
	Emotional	10-14	5	.829
	Behavioral	15-18	4	.843

Measurement instrument for self-directed learning capacity

The comprehensive measurement instrument proposed by Bae and Lee (2010) was used to measure the capacity for self-directed learning. This instrument includes a total of 21 items comprising seven factors management of the learning process, evaluation of learning outcomes, learning motivation, self-concept, persistence of learning activities, use/management of learning resources, and creation of learning environment. The researchers developed a self-directed learning ability measurement tool through questionnaires and a factor analysis of 365 HRD company members. These confirmed that self-directed learning ability involves a cognitive domain, affective domain, and behavioral domain. Table 3 shows the Cronbach α of the scale. The measurement scale used was a 5-point Likert scale.

Table 3. Reliability analysis of self-directed learning ability

	Sub-factors	Item number	Number of items	Cronbach's α
Cognitive domain	Course management	1-3	3	.771
	Evaluation of learning outcomes	4-6	3	.702
Affective domain	Learning motivation	7-9	3	.760
	Self concept	10-12	3	.701
Behavioral domain	Attributes of learning activities	13-15	3	.782
	Learning resource management	16-18	3	.725
	Learning environment	19-21	3	.733

Data Analysis

Data analysis in this study was conducted using SPSS 20.0 software. Multiple regression analysis was conducted to estimate the effects of background variables and learning engagement on the capacity for self-directed learning. The independent samples t-test and ANOVA were used to analyze differences in the capacity for self-directed learning depending on background variables, while correlation analysis was conducted on learning engagement and the capacity for self-directed learning.

Results

Effects of Background Variables and Learning engagement on the Capacity for Self-Directed Learning

Multiple regression analysis was conducted with the capacity for self-directed learning as the dependent variable, and background variables and learning engagement as the independent variables, to examine how they affected the overall capacity for self-directed learning. Analysis results showed that cognitive engagement and emotional engagement had a significant effect on the capacity for self-directed learning (See Table 4). In particular, cognitive engagement had a more direct positive effect on the capacity for self-directed learning.

Table 4. Relationship between background variables, learning engagement, self-directed learning ability

Dependent variable	Independent variable	Non-standardized tests		Standardized test	<i>t</i>	Multicollinearity	
		B	S.E	β		Tolerance	VIF
Self-directed learning ability	Constant	1.269	.219		5.795		
	Age	.040	.028	.080	1.404	.850	1.176
	Educational level	.067	.035	.106	1.944	.925	1.082
	Reasons for participation in education	-.104	.058	-.098	-1.793	.917	1.091
	Cognitive	.523	.052	.628	10.010**	.702	1.425
	Emotional	.108	.045	.160	2.421*	.629	1.591
	Behavioral	.028	.037	.051	.756	.602	1.660

* $p < .05$, ** $p < .01$

Effects of background variables and learning engagement on cognitive domain

Regression analysis was conducted to examine how background variables and learning engagement affected the cognitive domain of self-directed learning capacity. Analysis of the results indicated that cognitive engagement ($B = .632$, $p < .01$) had a significant effect on the cognitive domain of the capacity for self-directed learning (See Table 5). Learners with high cognitive engagement should be provided with the opportunity to self-manage their learning process in order to meet their learning goals, as well as to contemplate their own learning methods and procedures. With regard to the learning outcomes, the instructor should provide objective feedback.

Table 5. Relationship between background variables, learning engagement, cognitive domain

Dependent variable	Independent variable	Non-standardized tests		Standardized test	<i>t</i>	Multicollinearity	
		B	S.E	β		Tolerance	VIF
Cognitive domain	Constant	1.167	.336		3.469		
	Age	.051	.043	.083	1.188	.850	1.176
	Educational level	.092	.053	.116	1.735	.925	1.082
	Reasons for participation in education	-.052	.089	-.039	-.583	.917	1.091
	Cognitive	.632	.080	.603	7.868**	.702	1.425
	Emotional	-.058	.068	-.068	-.841	.629	1.591
	Behavioral	.060	.057	.087	1.053	.602	1.660

* $p < .05$, ** $p < .01$

Effects of background variables and learning engagement on affective domain

Regression analysis was used to examine how background variables and learning engagement influenced the affective domain of self-directed learning capacity (See Table 6). Analysis results showed that among background variables, the reason for participating in training ($B=-.254$, $p<.05$) had a significant negative effect on the affective domain of the capacity for self-directed learning, while cognitive engagement ($B=.418$, $p<.05$) and emotional engagement ($B=.344$, $p<.05$) had a significant positive effect. Emotional engagement was found to only influence the affective domain of the capacity for self-directed learning.

Table 6. Relationship between background variables, learning engagement, affective domain

Dependent variable	Independent variable	Non-standardized tests		Standardized test	<i>t</i>	Multicollinearity	
		B	S.E	β		Tolerance	VIF
Affective domain	Constant	1.503	.333		4.510		
	Age	.015	.043	.023	.344	.850	1.176
	Educational level	.044	.053	.054	.837	.925	1.082
	Reasons for participation in education	-.254	.088	-.186	-2.885**	.917	1.091
	Cognitive	.418	.080	.388	5.248**	.702	1.425
	Emotional	.344	.068	.396	5.069**	.629	1.591
	Behavioral	-.059	.056	-.084	-1.049	.602	1.660

* $p<.05$, ** $p<.01$

Effects of background variables and learning engagement on behavioral domain

Regression analysis was used to examine how background variables and learning engagement affected the behavioral domain of self-directed learning capacity (See Table 7). Behavioral domains of self-directed learning ability include persistence of learning activities, management of learning resource use, and learning environment creation. Analysis results showed that cognitive engagement ($B=.521$, $p<.01$) was the only variable that had a significant effect on the behavioral domain of the capacity for self-directed learning. The extent of the cognitive involvement of variables influencing the behavioral domain of self-directed learning ability indicated that learners who accept responsibility for their learning are open to challenges. Learners focus on the achievement of their learning goals because of their curiosity and passion for learning. This helps ensure that they complete their learning courses and do not drop out.

Table 7. Relationship between background variables, learning engagement, behavioral domain

Dependent variable	Independent variable	Non-standardized tests		Standardized test	<i>t</i>	Multicollinearity	
		B	S.E	β		Tolerance	VIF
Behavioral domain	Constant	1.181	.263		4.486		
	Age	.048	.034	.091	1.421	.850	1.176
	Educational level	.066	.042	.098	1.592	.925	1.082
	Reasons for participation in education	-.039	.069	-.034	-.555	.917	1.091
	Cognitive	.521	.063	.584	8.296**	.702	1.425
	Emotional	.061	.054	.085	1.138	.629	1.591
	Behavioral	.065	.044	.110	1.452	.602	1.660

* $p < .05$, ** $p < .01$

Differences in the Capacity for Self-Directed Learning Depending on Background variables of Learners

Differences in the capacity for self-directed learning by learners' age

ANOVA was conducted to ascertain whether there were differences in the capacity for self-directed learning depending on the age of learners. Analysis results showed that statistically significant differences were found in the learning motivation aspect of the affective domain of the capacity for self-directed learning, as well as the persistence of learning activities in the behavioral domain (See Table 8). There was also a significant difference between the participants in their 20s and those in their 40s. The higher the age, the stronger the emotional participation. Learners with high emotional participation were deeply involved in the learning process and this fostered a passion for using the knowledge and kindled their interest in learning. Regarding the factors influencing the capacity for self-directed learning, such as learning motivation and the persistence of learning activities, significant differences were found for older learners. In addition, a study by Kim and Choi (2012) found that older teachers tended to exhibit greater adaptability in terms of total adaptability as well as other areas, such as student guidance, administrative duties, and interpersonal relationships. Because adult learners' learning is multidimensional and complex, detailed examination of their learning characteristics based on analysis of learning outcomes is essential. The self-directed learning ability of adult learners showed a significant difference according to age. There was a statistically significant correlation between voluntary planning, learning passion, and continuity of learning activities among the sub-factors of age and

self-learning ability.

Table 8. Self-directed learning ability according to age

Sub-factors		Age	M	SD	<i>F</i>	Scheffe
Cognitive domain	Course management	20s	3.61	.64	1.38	
		30s	3.63	.75		
		40s	3.83	.68		
	Evaluation of learning outcomes	20s	3.61	.55	1.22	
		30s	3.44	.77		
		40s	3.61	.51		
Affective domain	Learning motivation	20s	3.77	.70	3.62*	(1,3)
		30s	3.94	.73		
		40s	4.16	.56		
	Self concept	20s	3.60	.51	.82	
		30s	3.75	.65		
		40s	3.63	.85		
Behavioral domain	Attributes of learning activities	20s	3.34	.55	4.01*	(1,3)
		30s	3.51	.77		
		40s	3.73	.61		
	Learning resource management	20s	3.59	.55	3.03	
		30s	3.82	.67		
		40s	3.89	.67		
	Learning environment	20s	3.67	.56	.82	
		30s	3.57	.92		
		40s	3.48	.53		

* $p < .05$, ** $p < .01$

Differences in the capacity for self-directed learning by learners' level of education

ANOVA was conducted to ascertain whether there were differences in the capacity for self-directed learning depending on the learners' level of education. Results of the analysis showed evidence of significant differences, with master's degree or higher being greater than bachelor's degree which in turn was higher than associate degree (See Table 9). Learners with higher levels of schooling performed better in terms of the management of the learning process in the cognitive domain of the capacity for self-directed learning, evaluation of learning outcomes in the behavioral domain, and use and management of learning resources. There was no significant difference related

to gender or educational attainment and respondents' motivation to participate in learning.

Table 9. Self-directed learning ability according to educational level

	Sub-factors	Educational level	M	SD	F	Scheffe
Cognitive domain	Course management	College	3.36	.68	5.490**	(1,3)
		Undergraduate	3.71	.68		
		Graduate	4.07	.61		
	Evaluation of learning outcomes	College	3.41	.51	3.299*	(1,3)
		Undergraduate	3.51	.65		
		Graduate	3.91	.65		
Affective domain	Learning motivation	College	3.73	.65	1.815	
		Undergraduate	3.96	.69		
		Graduate	4.13	.79		
	Self concept	College	3.54	.63	1.051	
		Undergraduate	3.68	.66		
		Graduate	3.84	.70		
Behavioral domain	Attributes of learning activities	College	3.31	.57	2.893	
		Undergraduate	3.51	.69		
		Graduate	3.82	.60		
	Learning resource management	College	3.51	.65	5.849**	(1,2)
		Undergraduate	3.75	.62		
		Graduate	4.20	.58		
Learning environment	College	3.41	.60	.909		
	Undergraduate	3.60	.78			
		Graduate	3.69	.53		

* $p < .05$, ** $p < .01$

Differences in the capacity for self-directed learning by reason for participating in training

The paired-samples t-test was conducted to examine whether there were differences in the capacity for self-directed learning relating to the learners' reason for participating in training. Test results showed that voluntary participants performed significantly better than involuntary participants in terms of learning motivation and self-concept in the affective domain of the capacity for self-directed learning, as well

as the use and management of learning resources in the behavioral domain (See Table 10). In addition, a study by Han (2007) found that voluntary participation of learners accounted for 45.1% of the total variance in the capacity for self-directed learning, thus highlighting the importance of the voluntariness of participation in training. The learner who has developed self-directed learning ability has high intrinsic and extrinsic motivation.

Table 10. Self-directed learning ability according to reasons for participation in education

Sub-factors		Voluntary participation		Compulsory Participation		<i>t</i>
		M	SD	M	SD	
Cognitive domain	Course management	3.70	.692	3.58	.717	.906
	Evaluation of learning outcomes	3.59	.582	3.42	.784	1.358
Affective domain	Learning motivation	4.06	.651	3.56	.690	3.849**
	Self concept	3.75	.676	3.40	.491	2.779**
Behavioral domain	Attributes of learning activities	3.55	.722	3.34	.430	1.621
	Learning resource management	3.84	.633	3.50	.570	2.788**
	Learning environment	3.57	.730	3.62	.730	-.318

* $p < .05$, ** $p < .01$

Correlation Analysis

Correlation analysis was conducted on the following key variables included in this study: the cognitive, affective, and behavioral engagement of learners; and the cognitive, affective, and behavioral domains of the capacity for self-directed learning. Analysis results indicated that there were positive correlations among each of these variables (See Table 11). Considering the correlations between each variable, the researcher found that learners with cognitive engagement had the highest overall correlation coefficient of .839, and that learners with high cognitive engagement exhibited positive correlations with all aspects of engagement. Cognitive engagement and the capacity for self-directed learning were found to be highly correlated with a coefficient of .727, while cognitive, affective, and behavioral engagement were found to be positively correlated with all domains of the capacity for self-directed learning. Interestingly, learning engagement variables did not have a significant effect on the

creation of the learning environment in the behavioral domain. A similar finding was reported by Shin (2009), who found that the class environment did not significantly affect the learning environment. The basic prerequisites for improving learning satisfaction through enhancing the class environment include strengthening the in-class relationship between teachers and students, as well as instilling an achievement goal orientation. The correlation between behavioral engagement and the affective domain of the capacity for self-directed learning was found to be statistically significant, indicating that learners with higher emotional engagement had higher learning motivation as well as persistence of learning activities. The correlation coefficient between behavioral engagement and the behavioral domain of the capacity for self-directed learning (persistence of learning activities) was significant at .479, which suggested that learners exhibiting active behavioral engagement would also be more capable of self-directed learning.

Table 11. Correlation matrix variables

Sub-factors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1														
2	.839**	1													
3	.751**	.381**	1												
4	.806**	.495**	.525**	1											
5	.724**	.727**	.485**	.467**	1										
6	.544**	.629**	.242**	.353**	.803**	1									
7	.452**	.520**	.220**	.278**	.717**	.856**	1								
8	.461**	.536**	.184*	.317**	.627**	.822**	.409**	1							
9	.604**	.526**	.557**	.353**	.810**	.455**	.452**	.305**	1						
10	.517**	.345**	.620**	.310**	.631**	.277**	.254**	.208**	.857**	1					
11	.510**	.554**	.319**	.291**	.749**	.502**	.520**	.313**	.843**	.445**	1				
12	.666**	.670**	.419**	.455**	.898**	.602**	.531**	.479**	.602**	.467**	.559**	1			
13	.627**	.582**	.416**	.479**	.761**	.522**	.492**	.380**	.597**	.470**	.547**	.769**	1		
14	.584**	.523**	.455**	.404**	.791**	.554**	.539**	.383**	.644**	.534**	.561**	.770**	.581**	1	
15	.226**	.330**	.045	.103	.382**	.224**	.122	.261**	.076	.022	.109	.595**	.091	.109	1
M	3.38	3.42	3.52	3.09	3.66	3.61	3.67	3.54	3.80	3.93	3.66	3.61	3.50	3.75	3.58
SD	0.510	0.535	0.669	0.816	0.445	0.556	0.693	0.632	0.576	0.692	0.662	0.478	0.668	0.637	0.721

* $p < .05$, ** $p < .01$

Note: 1=Learning engagement(2=Cognitive engagement, 3=Emotional engagement, 4=Behavioral engagement), 5=Self-directed learning ability(6=Cognitive domain, 7=Course management, 8=Evaluation of learning outcomes, 9=Affective domain, 10=Learning motivation, 11=Self concept, 12=Behavioral domain, 13=Attributes of learning activities, 14=Learning resource management, 15=Learning environment)

Discussion and Conclusion

The aim of this study was to examine how adult learners' background variables and learning engagement affected their capacity for self-directed learning, in order to provide instructors with the information required to organize instructional activities suited to their students' background variables and employing optimal types of engagement, in an effort to explore various means of enhancing their capacity for self-directed learning. Some crucial prerequisites for reinforcing the capacity for self-directed learning among adult learners include strengthening the rewards of various educational activities and work performance while ensuring the individual autonomy of learners (Manz & Sims, 1980). The conclusions derived from this study are as follows.

First, adult learners' background variables and engagement were found to have significant effects on their capacity for self-directed learning. In addition, a study by Jung (2018) found that learning orientedness and goal-orientedness had positive effects on the capacity for self-directed learning. Since adult learners have clearly defined learning goals and are passionate about learning, these factors were found influence their capacity for self-directed learning by leading them to set learning goals and to select the resources required for learning. Activating learners' capacity for self-directed learning by stimulating their cognitive engagement during instruction could yield better learning outcomes. Furthermore, instructors may enact additional means of reinforcing cognitive engagement by providing learners with level-specific learning exercises, instructional design that enables high-impact practices, and opportunities for in-class interactions with people from diverse backgrounds.

Second, testing for differences in the capacity for self-directed learning depending on background variables of adult learners, higher age and more years of experience found a significant positive effect on the cognitive domain of the capacity for self-directed learning. Moreover, with regard to the efficacy of online self-directed classes depending on gender, year of schooling, and major of university students, Kim (2015) found evidence of significant differences in the capacity for self-directed learning by students' year of schooling.

Third, considering the correlations between the engagement of adult learners and their capacity for self-directed learning, cognitive engagement and emotional engagement were found to be positively correlated with the capacity for self-directed learning. Furthermore, Jung (2018) found that the learner's own educational choices and autonomous decision-making were sufficient for preventing the cessation of learning. Adult learners achieve immersion in learning when they explore subjects that they consider to be significant—as the principal agents of learning, they can achieve true learning when they study in a self-directed manner. This finding, which was corroborated by

that of Park (1998), indicated that learners with high cognitive engagement were more accepting of responsibility and had exceptional intellectual curiosity and passion for learning; they also remained committed to prioritizing the realization of their learning goals and academic achievements.

As evident from the findings of this study, in order for adult learners to improve their capacity for self-directed learning, it is important that they clearly identify their own motivations for engagement in learning and establish learning strategies that will allow them to achieve their learning goals. In the current era, when the timely acquisition of new knowledge and technology is particularly important, a self-directed attitude toward learning is crucial. In view of this, there is a need for systematic support at the national level in identifying learners' engagement characteristics in order to improve their capacity for self-directed learning and to strengthen their self-directedness.

References

- Bae, E. G., & Lee, M. Y. (2010). The development of the self-directed learning ability inventory for employees in HRD companies. *The Korean Journal of Human Resource Development, 12*(3), 1-26.
- Bae, E. G. (2012). Mutual fund flows and fund performance: Empirical evidence from Korean mutual funds market. *Korea Journal of Business Administration, 25*(9), 3709-3729.
- Cha, G. B. (1999). Gerald O, Grow's critical consideration on the staged self-directed learning (SSDL) model. *The Korean Journal of Lifelong Education, 5*(1), 141-160.
- Jang, T. W., & Hong, A. J. (2011). Enhancing organizational commitment and job involvement through self-directed Learning and absorptive capacity. *Korea Knowledge Management Society, 12*(2), 17-34.
- Cho, D. Y., & Kwon, D. B. (2005). Self-directed learning readiness as an antecedent of organizational commitment: A Korean study. *International Journal of Training and Development, 9*(2), 140-152.
- Cho, J. S., & Jeon, Y. M. (2019). A case study on effect analysis of students' engagement and learning outcomes in higher education. *The Korea Contents Society, 19*(1), 524-534.
- Ha, Y. J. (2011). The effects of mobile learning for just in time learning on learning satisfaction and learning competence. *The Korean Journal of Lifelong Education, 7*(1), 17-41.
- Han, S. H. (2007). The relationship between motivation for lifelong education and self-directed learning among adult learners. *Korean Association for Learner-Centered Curriculum And Instruction, 7*(2), 355-374

- Jung, C. G. (2018). *Mediating effects of self-directed learning ability on the relationship between types of learning participation motivation and level of learning flow of adult learners in a distance university* (Master's thesis, Inha University).
- Kim, H. J. (2011). The relationship between kindergarten teachers' self-leadership, background variables, and job satisfaction. *Korean Early Childhood Education Research, 13*(2), 35-62
- Kim, S. H. (2015). Self-directed learning programs at university: Influences on self-awareness, learning motivation, and learning strategies. *Global Creative Leader, 5*(2), 71-91.
- Kim, S. N., & Choi, H. J. (2012). A study on variables affecting kindergarten teachers' adaptation to the teaching profession. *Korea Childcare Support Institute, 8*(4), 53-76.
- Lee, H. S. (2001). Exploring the meaning of the transformation from learning society to learning economy. *Research on Lifelong Education, 7*(1), 211-238.
- Lee, Y. S., & Lee, K. H. (2018). Effects of online self-directed learning lecture on improvement of self-directed learning ability of university students. *Global Creative Leader, 8*(3), 51-70.
- Park, M. J. (1998). *Analysis of relationship between patterns of motivation for participation to study and level of preparation for self-directed learning at Korea National Open University* (Master's thesis, Ewha Womans University).
- Ryu, E. J. (2009). *A study on background variables, learning styles and e-learning strategies of university students in e-learning environment* (Master's thesis, Sookmyung Women's University).
- Shin, H. S. (2009). Mediating effects of teacher-student relations and achievement goal orientations in the relations between instructional contexts and academic skills. *The Institute of Educational Research Chonnam National University, 32*, 51-74.
- Woo, J. W., & Kim, B. G. (2014). The effects of psychological capital on self-directed learning and learning engagement for college students. *Learner-Centered Curriculum Education Research, 14*(3), 45-70.
- Yoo, J. W., & Kang, M. H. (2012). The structural relationship among learning environment factors, individual factors, and learning engagement. *Learner-Centered Curriculum Education Research, 12*(4), 309-337.
- Coates, H. (2006). *Students engagement in campus- based and online education*. NY: Routledge.
- Guglielmino, L. M., & Guglielmino, P. J. (2001). Moving toward a distributed learning model based on self-managed learning. *SAM Advanced Management Journal, 66*(3), 36-43.
- Handelsman, M. M., Briggs, W. L., Sullivan, N., & Towler, A. (2005). A measure of college student course engagement. *The Journal of Educational Research,*

98(3), 184-191.

Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. NY: Cambridge.

Manz, C. C., & Sims, H. P. (1980). Self-management as a substitute for leadership: A social learning theory perspective. *Academy of Management Review*, 5(3), 361-367.

Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2004). Enhancing students' engagement by increasing teachers' autonomy support. *Motivation and Emotion*, 28(2), 147-169.

Korean Abstract

성인학습자의 배경변인과 학습참여가 자기주도학습능력에 미치는 영향

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이 연구의 목적은 성인학습자의 배경변인과 학습참여가 자기주도학습능력에 미치는 영향을 연구하여 자기주도학습능력의 활성화 방안을 모색하는 것이다. 연구대상은 중소기업 핵심 직무능력향상 교육프로그램에 참여하는 성인학습자로 20대부터 50대까지 180명을 대상으로 설문조사를 실시하여 최종 150부를 분석에 사용하였다. 본 연구의 주요 결과를 정리하면 다음과 같다. 첫째, 성인학습자의 배경변인과 학습참여는 자기주도학습능력에 유의한 영향을 미치며, 성인학습자는 학습에 대한 열의와 뚜렷한 목표가 있을 때 자기주도학습능력이 향상된다. 둘째, 성인학습자의 연령이 높아지고 경력이 많을수록 자기주도학습능력의 인지적 영역에 유의한 영향을 미치는 것으로 확인되었다. 셋째, 성인학습자의 학습참여 중에서 인지적 참여와 감성적 참여는 자기주도학습능력에 유의한 영향을 미치는데, 성인학습자는 본인에게 의미 있다고 판단될 때 학습 몰입을 하게 되고, 자기주도학습이 이루어진다. 이와 같은 결과는 학습자가 자기주도적인 학습태도를 함양하고 있다면 새로운 지식과 기술의 습득에 용이하며, 평생교육 시대를 살아가는 우리에게 매우 필요한 능력이 바로 자기주도학습 능력이라는 것이다. 따라서 본 연구에서는 자기주도학습능력을 향상시켜 자기주도성을 높이기 위해서는 국가차원의 체계적인 교육지원이 요구됨을 시사한다.

주요어: 성인학습자, 배경변인, 학습참여, 자기주도학습능력
