

Development and Effect Analysis of Blended Learning-based Program for Enhancing Parental Efficacy

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Abstract: The purpose of this study is to analyze effects by developing and implementing the blended learning-based program for enhancing parental efficacy based on the analysis of the requirements for the development of parent education program and the extraction of significant models of parenting style (consistent expressions of support, rational attitude, expectations, corporal punishment and interference) and parental efficacy.

A needs analysis for the development of parent education and a survey for the extraction of significant models of parenting style and parental efficacy were conducted for statistical analysis as the research methods, and 500 parents with school-age children in Seoul, Gyeonggi-do, Daejeon, Gwangju and Busan areas were sampled as the research subjects. The educational content of the program for enhancing parental efficacy, education methods and implementation period were examined through a needs analysis, and the program for enhancing parental efficacy was developed by setting the self-reflection, learning and training, application, self-evaluation (SLAS) hybrid model, which is a development model of the parent education program. In addition, 168 parents with school-age children in the capital area as well as Seoul and other areas who participated in the program were selected for the effect analysis. The statistical methods used in this study were multiple regression analysis, paired T-test, independent samples T-test and one-way analysis of variance (ANOVA).

According to the results of this study, the rational attitude and corporal punishment out of the parenting style were significant factors to the parental efficacy and the consistent expressions of support, expectations and interference were not significant. Through a needs analysis, the SLAS Hybrid model, which is a model for designing and constructing the content of parent education program, has been proposed, and the blended learning-based program for enhancing parental efficacy was developed. In addition, the program for enhancing parental efficacy brought about positive changes to the parental efficacy (parenting skills, positive parenting efforts, parenting confidence, learning coaching skills and parenting management skills) of the parents who participated in the education. Such a series of the findings are providing data for the expansion of parent education as future life-long learning and the development and operation of more effective parent education program.

Keywords: Parent education, Parental Efficacy, Parenting style

Introduction

Information and knowledge are explosively growing in the modern society, and the traditional family structure is changing. As a result, parents are experiencing a lot of problems in performing their role of rearing their children properly. Although most modern parents can easily access to a lot of knowledge and information about rearing their children as compared to the past, it is difficult for them to determine the problems between parents and children, problems with their children's school life, parenting attitude and so on. In addition, the annual cost spent on private education in Korea was at the level of 8.0117 trillion won in 2001 and 9.3258 trillion won in 2002, but it exceeded the range of 10 trillion won from 2003. Since then, the annual expenditure for private education has continued the trend of sudden increase recording 12.8559 trillion won in 2004, 13.7517 won in 2005 and 15.6571 won in 2006 (Maeil Business Newspaper, July 20, 2009) and it has doubled during the last decade recording a total of 20.1266 trillion won in 2011 (Statistics Korea, February 17, 2012).

This phenomenon is considered to be caused by the fact that parents failed to form their view of education due to the confusion over the values of the school, lack of understanding of the school, lack of the response to the educational environment, avoidance of the parent's role due to their busy daily life and lack of understanding of child development even though the information on their children's education and the accessibility to information increased as compared to the past. In addition, it can be said that parents are vaguely investing in private education due to their responsibility of their children's education and to get effect of education while they fail to identify their own parenting style and lack understanding of their children even though they are full of enthusiasm for their children's education. This disproves the fact that the parental efficacy of the parents who rely on private education is low and they do not know about the education method for their children well.

Recently, due to the needs of parent education, the professionals in the fields of education and counseling in Korea have studied and developed Korea's own programs suitable for Korea's culture while introducing and applying various foreign parent education programs. At present, there is parent education through special lectures by public organizations or civic organizations, lectures by women-related organizations and counseling agencies and in the popular form through TV, radio and internet. However, the existing parent education programs have the following problems.

First, the parents in the modern society lack the introspection for their own parenting style and have no clear goal for their parental role. Second, there are problems with the programs developed in the Western countries in that they are not suitable for Korea's culture or unique characteristics of family relationship. With the contemporary and social needs, a variety of Western parent programs such as parent effectiveness training (PET), systematic training effective parenting (STEP) and active parenting training (APT) are being conducted in Korea. However, the programs developed in foreign countries have been pointed out that they lack the efforts to activate the family function as a system that utilizes social support actively have a strong tendency to magnify the problems than a variety of resources or strengths of the parents or family (Yang & Kim, 2003). In particular, these programs are considered to have decisive problems of downgrading parenting efficacy (Fitzpatrick, 2002) which is required for the parents and is the most important factor to help their children grow up as a healthy man by branding the parents as the parents with problems. Third, these programs have problems in terms of the method of parent education in that they do not consider parents who are busy in this modern society due to the increased social participation. These problems hinder the flexibility of conducting programs and their process of goal setting and selection, implementation and assessment of content are not suitable for parents. Therefore, the learner-centered education method appropriate for the circumstances faced by the parents is needed, and the optimal method that can provide education reflecting the circumstances and learning styles that are individually different should be sought. Fourth, there are problems in that the content of parent education programs is concentrated on the parent effectiveness training and the parents who participated in the program are receiving mechanical training without the opportunity to self-examine their own capacity and psychological status as a parent.

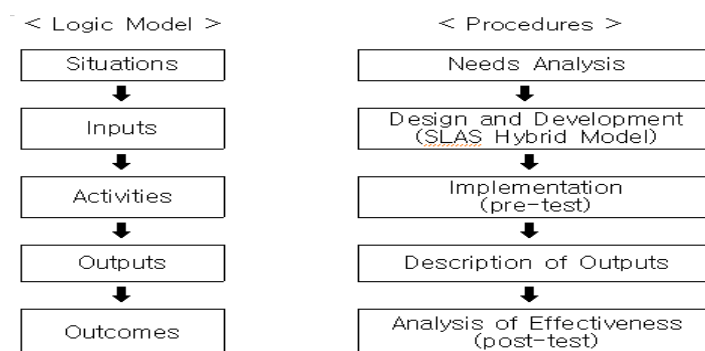
As seen from above, the problems of parent education programs so far found can be summarized in four points of view. First, there is a problem with parenting efficacy in that parents lack introspection for their own parenting style and rely on private education for child-rearing, and parent education does not meet the educational demands while it

needs to be changed in the direction that individualized parent education where the parents' social and cultural characteristics and the characteristics of the programs coincide is conducted (Kroth, 1989). Second, there is a problem with the programs developed in the Western countries in that they are not suitable for Korea's culture or unique characteristics of family relationship. Third, parents' social participation is increasing with the development of the modern society to information society, making the parent education that takes place in a specific place at a specific time more and more difficult (Park, 2006). Fourth, the content that supports the improvement of parent efficacy is needed in terms of the content of parent education.

Accordingly, the purpose of this study is to develop the blended learning-based parenting efficacy improvement program where the parents in the modern society can improve their own parenting efficacy, that is suitable for the parents who are busy with the increase of social participation and that pursues diversity in the direction of laying stress on the mutually cooperative relationship between parents and professionals in terms of content selection, organization and operation of parent education and to analyze its effect. In order to achieve these objectives, the research questions were set as follows. First, what gives an effect to the parental efficacy out of the parenting style factors of the parents with school-age children? Second, what is the model of the development of the blended learning based program appropriate for enhancing the parental efficacy of the parents? Third, is the program for enhancing parental efficacy developed effective?

Method

[Fig. 1] shows the procedure of this study. At first, the subjects for this study were divided into two groups. The subjects of the first group were selected to analyze the needs for the development of the blended learning-based program for enhancing parental efficacy and to develop the parenting style and parental efficacy questionnaire for pre-and-post tests, and the parents with school-age children in Seoul, Gyeonggi, Daejeon, Gwangju and Busan areas were selected for this group. One elementary school per area was randomly selected for sampling and a total of 500 questionnaires, i.e. 100 questionnaires per school were distributed. The questionnaires from 331 subjects were collected and 282 subjects except for the 49 subjects who did not complete the questionnaire were selected for the survey.



[Fig. 1] Logic Model and The procedure

Through Exploratory factor analysis, the parenting style test (PST) composed of thirty-six questions and five factors (consistent expressions of support, rational attitude, interference, corporal punishment and expectations) were developed as the tool for measuring the parenting style of the parents. The parental efficacy test (PET) composed of thirty-four questions and five factors (parenting skills, positive parenting efforts, parenting confidence, learning coaching skills, parenting management skills) were developed as the tool for measuring the parental efficacy. Their Cronbach's α values were 0.899 and 0.953, respectively.

In addition, the educational content of the program for enhancing parental efficacy, education methods and implementation period were examined through a needs analysis, and the blended learning based program for enhancing parental efficacy was developed by setting the hybrid model of self-reflection, learning and training, application and self-evaluation (SLAS) which is a model of the development of the parent education program. The

promotion to attract the subjects for the analysis of the effects of the developed program for enhancing parental efficacy was made mainly in Seoul. A total of 168 applicants applied for the participation, but 87 subjects who complete pre-and-post tests and the questionnaire in good faith were selected to conduct the analysis of effect. The effectiveness of the program for enhancing parental efficacy was analyzed through the paired samples t-test.

Results

Relationship between the Factors of Parenting Efficacy and Parenting Style

The multiple regression analysis was used to create a significant model by selecting only the significant factors affecting parenting efficacy out of the parenting style factors (consistent expressions of support, rational attitude, interference, corporal punishment, expectations) and to investigate which of the significant factors has more influence on parental efficacy. In addition, the results of analysis were used as the criteria for selecting content when selecting the content of the program for enhancing parental efficacy.

The relationship between the factors of consistent expressions of support, rational attitude, interference, corporal punishment and expectations, which are an independent variable individually, and parental efficacy, which is an dependent variable, was checked by drawing a scatter plot and the suitability of the model was verified. The results are as shown in <Table 1> and <Table 2>.

<Table 1> Analysis of Variance Table for Regression Model (n=87)

	Sum of Square	Degree of Freedom	Mean Square	F	p-value
Linear Regression Analysis	12215.212	2	6107.606	32.787	.000
Residuals	15650.121	84	186.311		
Total	27865.333	86			

$R^2(\text{adj.}R^2)=.44(.43)$

In the summary part of the model, R^2 is .44, and it can be said that the rational attitude and corporal punishment account for approximately 44% (43% according to the modified R^2) of the total variation. As the significance level in the analysis of variance table is less than .001 and is a significant result at the significance level $\alpha = .05$, this model can be said to be a statistically significant model.

<Table 2> Multiple Regression Analysis for Parenting Efficacy (n=87)

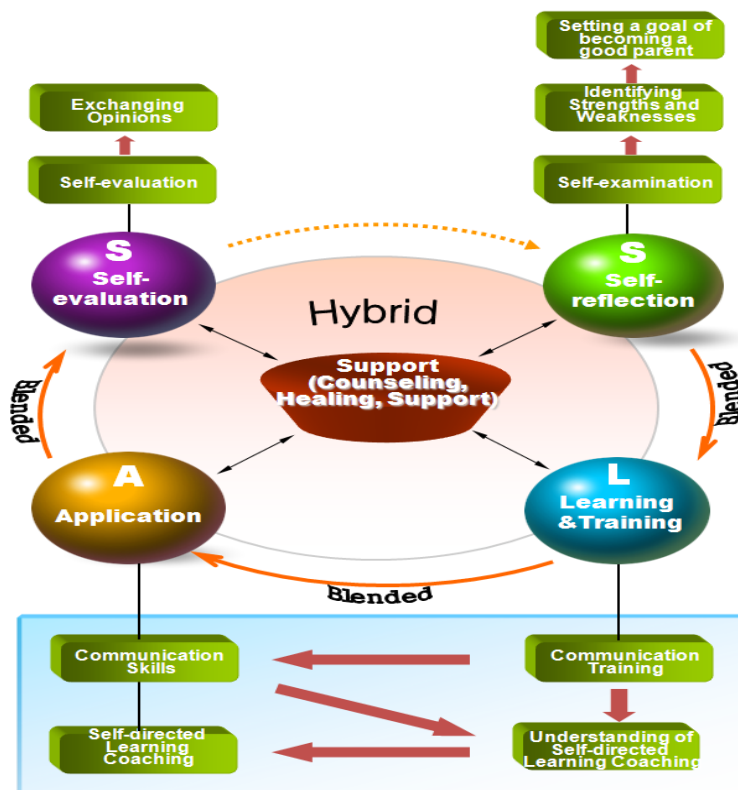
Independent Variable	Unstandardized Coefficient		Standardized Coefficient	t	p-value	VIF
	B	Standard Error				
Rational Attitude	1.949	.351	.534	5.548	.000	1.384
Corporal Punishment	-1.003	.480	-.201	-2.090	.040	1.384
Intercept (Constant)	78.748	12.257		6.425	.000	

In addition, as seen from <table 2>, the rational attitude coefficient is 1.949 and its p-value is .000, meaning that it is significant at the significance level of .05. The corporal punishment coefficient is -1.003 and its p-value is .040, also showing significant results at the significance level of .05. The intercept out of the regression coefficients was 78.748. However, the p-values of the of consistent expressions of support, expectations and interference were .821, .767, and .991, respectively and were excluded as they were not significant at the significance level of .05. Therefore, the model of this analysis can be presented as 『Parental Efficacy Score = 78.748 + 1.949 × Rational Attitude - 1.003 × Corporal Punishment.』 . It can be seen from this model that the lower the degree of corporal punishment is, the more

parental efficacy score increases when the rational attitude is the same, and that the lower the rational attitude is, the more parental efficacy score increases when the degree of corporal punishment is the same. In addition, as the β value of the rational attitude is .534 and the β value of the corporal punishment is .201, it can be seen that the rational attitude has more influence in explaining parental efficacy. Therefore, parental efficacy will be able to be improved through the content that can strengthen parents' rational attitude and the parenting skills and training that can reduce the corporal punishment when selecting the content of the program for enhancing parental efficacy.

Development of the Program for Enhancing Parental Efficacy

The new blended learning-based parent education program development model can be presented as shown in [Fig. 2].



[Fig. 2] Blended Learning-Based SLAS Hybrid Model

The first stage is the stage of self-reflection. In this stage, parents self-examine themselves as a man and as a parent and look at their own parenting style and parental efficacy. Based on this, they set their own goal of being a good parent. This stage is composed of the content and activities that achieve these learning goals. In addition, it helps parents get support for all activities. The second stage is the stage of learning and training. This stage is composed of the content and activities to provide parents with the information that is needed to compensate their shortcomings as a parent identified in the previous stage. The most basic activities can be composed of communication skills and learning coaching skills. However, given that proper learning takes place only when it is based on the emotional stability, the content and activities related to communication skills should be first constructed and then the content and activities related to learning should be constructed. In addition, the contents and activities will need to be modified and enhanced through training so that parents can get accustomed to a lot of information and activities that are being provided. In this stage, the external support that can lower stress coming from learning and efforts for changing the style is needed. The third stage is the stage of application in real life. This is the stage where parents

apply the parenting skills and changed parenting style to which parents got accustomed through training in the previous stage. In this stage, external support is also needed for the stress felt by the parents when applying various parenting skills and decreased motivation caused by excessive expectation. The fourth stage is the stage of self-evaluation. It is the stage where parents evaluate and examine themselves for all the processes modified and enhanced through training and then applied to real life after learning by finding and selecting information self-initiatively along with parent education. At this time, external support such as the feedback through counseling, etc. is needed for parents to keep trying and changing continuously regardless of the successful or unsuccessful results of their self-evaluation. In the fifth stage, the parents as learners in each stage need to be made not to give up or be eliminated in the middle of progressing parent education, and when counseling and therapeutic activities are needed than general education, it is needed to switch immediately to the supportive counseling and healing activities. Therefore, in a sense that external support is being provided with the progress of parent education at the same time just like the hybrid cars that switch from gasoline to electricity, from gasoline to electricity or use both of them at the same time as needed, this can be said to be the hybrid model unlike the blended model in a sense that the information delivery and training-centered parent education activities and therapeutic activities such as counseling and healing are switched or conducted at the same time depending on the needs of the learners.

Effect of the Program for Enhancing Parental Efficacy

The quantitative analysis for the effectiveness of the program for enhancing parental efficacy was analyzed through paired t-test analysis by conducting a pre-test before the start of the program and a post-test mixed with questions at the end of the program for the subjects who participated in the program, and the results are as shown in <Table 3>.

<Table 3> Paired Samples Statistics

	Mean	N	Standard Deviation	Standard Error of Mean
Paired B_Parental Efficacy	118.333	87	18.000	1.930
1 A_Parental Efficacy	124.989	87	19.072	2.045

As a result of analyzing the questionnaires completed in good faith by 87 subjects except for the data of the subjects who participated in bad faith, it can be seen that the mean parenting efficacy score of the pre-test is 118.3 while that of the pre-test is 124.9, showing a significant difference in parental efficacy.

As seen from <Table 4>, the mean of difference is -6.65517 and the standard deviation is 24.45443. From the fact that the mean of paired difference is "-", it can be seen that the score of parental efficacy became higher and the p-value was .05, showing a statistically significant result. It can be said there were statistically significant results with the parental efficacy pre-test and post-test conducted for the subjects who participated in the program for enhancing parental efficacy, resulting in a significant difference between the parental efficacy scores before the operation of the program and after the operation of the program. In other words, it can be said that the program for enhancing parental efficacy is effective in improving parental efficacy.

<Table 4> Paired T-test

	Paired Difference		t	Degree of Freedom	p-value (Both Sides)
	Mean	Standard Deviation			
Paired B_Parenting Efficacy 1 A_Parenting Efficacy	-6.655	24.454	-2.538	86	.013

CONCLUSION AND DISCUSSION

This study aimed to develop the blended learning-based program for enhancing parental efficacy and to analyze its effects, and it intends to make conclusions as follows.

First, the content of parent education should be selected based on the results of the needs analysis to increase the satisfaction of the educatees, performance of educational purpose and effectiveness of education. As investigated through regression analysis, the content that increases parents' rational attitude and reduces the corporal punishment should be selected when selecting the content for parent education, and should provide communication training with their children, understanding of self-directed learning and coaching skills for parents by online or blended learning. This can be said to result from the fact that the learners who preferred offline education in the past now prefer the education environment that can overcome the limitations of time and space due to their busy daily life and they experienced the effectiveness of online education by being exposed to a variety of online education.

The effectiveness of education can be expected to be increased by providing a variety of ways for educational opportunities and learning methods for the parents who have difficulties in keeping in touch with parent education due to their busy daily life so that they can select the learning method and organize it for themselves. In addition, blended learning can be seen as an appropriate way for parent education taking the characteristics of parents as an adult learner into account.

Second, there should be a parent education program development model suitable for the status and culture of the parents in the modern society. The parents in the modern society lack the activities such as self-examining them and setting goals to be a good parent. In addition, they feel burdened about rearing their children as a parent and their materialistic thinking is getting greater. Furthermore, many parents feel excessively stressed while rearing their children who are ambivalent and wandering in the college entrance exam-oriented educational environment and excessive competition system. With the reduced parental efficacy in this child-rearing environment, parents are losing spiritual power to rear their children more. Thus, parent education programs that can heal these problems through counseling with parents and support activities together with parent education should be developed. Therefore, it is considered that this study has great significance for the development of the area of parent education in that it developed the SLAS Hybrid model.

Third, parent education will need to be based on blended learning, allowing parents to share their thoughts and experiences with each other by organizing small education groups, and be operated in the practical education methods of conducting exercises and training. The reason is that the existing parent education programs consist mainly of the lecture-type methods that teach parents and provide information unilaterally, and the lecture-type methods prevented parents from selecting the learning method depending on their individual learning styles. Therefore, blended learning needs to enable parents to directly select and construct the learning method for themselves even for the learning method of each session by combining online and offline education. In addition, all elements needed for overall education such as the content of education, education methods, area of education, materials and human resources as well as blended learning method need to be properly mixed to maximize the learning effect.

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