

Early Childhood Teachers' Professionalism, Teaching Efficacy, and Teacher-child Interaction

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Abstract

The purpose of the study was to investigate the effects of early childhood teachers' professionalism and teaching efficacy on their teacher-child interaction. A total of 761 early childhood teachers working at childcare centers and kindergartens in South Korea were selected as the participants for the study. The study variables were measured using survey questionnaires. Pearson's correlation analyses and regression analyses along with Sobel test were conducted. The results demonstrated that early childhood teachers' teaching efficacy had a significant mediation effect on the relationship between their professionalism and teacher-child interaction. The results suggest the need to support early childhood teachers' recognition and development of professionalism as well as teaching efficacy that result in positive teacher-child interaction.

Keywords: *Early Childhood Teachers, Professionalism, Teaching Efficacy, Teacher-child Interaction*

1. Introduction

With the change in modern society, double-income couples have increased, and the birthrate has decreased. As a result, child rearing is considered a social issue beyond the boundaries of the family. The government is implementing various policies to solve these social problems. One of them is the expansion of free childcare for young children, which requires quality improvement of early childhood education.

The quality of early childhood education such as preschools or kindergartens is greatly influenced by the quality of the teachers who are primary human resources. In particular, teachers' direct interaction with young children is an important factor that affects their overall development and growth [1]. It has been reported that positive teacher-child interactions in early childhood education affect young children's emotional development, establish the basis for social development, and promote language development [2-3]. Therefore, we focused on the teacher-child interaction and examined related factors.

Teacher-child interaction is defined as communication between teachers and children as students in the process of teaching and learning that affects the effectiveness of education [4]. The results of the previous study reported that teachers with a high competency and knowledge of child development showed high level of teacher-child interaction [5]. According to Kontos and Wilcox-Herzog [6], teachers who had proper knowledge of child development and highly trained in childhood education were more positive in their interaction with children. In other words, teachers with high level of professionalism would have higher quality in interactions with young children. Thus, we considered early childhood teachers' professionalism as a

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variable that would affect teacher-child interactions.

Professionalism is regarded as the general characteristics required by a professional at the individual level [7]. In other words, it refers to the attitudes and behaviors that people in the certain profession may display; their belief in their work, their dedication to their job for a long time, and their freedom to decide by their knowledge as an expert. A professional person has the expertise and attitude associated with the field through long-term training, and early childhood teachers are no exception [8]. According to Saracho and Spodek [9], early childhood teacher's professionalism is important to the teacher's sufficient experience to provide a quality child care service. Furthermore, the quality level of early childhood programs depends on teachers' professional attitudes and perceptions. It has been noted that even though educational institutions have good educational program and environment, the educational outputs eventually depend on teachers who run them [10]. Therefore, early childhood teachers' professionalism might be a very important factor that results in high level of teacher-child interaction during the process of teaching and learning.

Another teacher-related internal variable that affects teacher-child interaction is teaching efficacy. Teaching efficacy is defined as a belief that he or she can have an effects on students as a teacher through instruction and teaching [11]. Teaching efficacy has been derived from the classic concept of self-efficacy suggested by Bandura [12]. Bandura defined self-efficacy as the belief about one's own capabilities to organize and execute a certain task. Self-efficacy beliefs influence thought patterns and emotions, which in turn enable or inhibit actions. It exists in many domains of human functioning. Specifically in an educational context, teaching efficacy is the teacher's personal, self-perceived belief in ability to plan instruction and accomplish instructional objectives. It is in effect the conviction the teacher has about his or her ability to teach pupils efficiently and effectively. Teaching efficacy consists of two dimensions: General and personal teaching efficacy [13]. General teaching efficacy refers to the extent to which a teacher believes that his or her students are capable of learning the material, and personal teaching efficacy refers to the extent to which a teacher believes that his or her students can learn under his or her instruction.

Teacher's teaching efficacy needs to be distinguished from teacher competence, which is usually interpreted and/or applied to refer to only the teacher's professional knowledge and skills. Teaching efficacy is a broader concept, and in fact high teaching efficacy underlies and enables successful use of professional knowledge and skills, or conversely, low teaching efficacy inhibits effective use of professional knowledge and skills. Thus, teaching efficacy is a strong self-regulatory characteristic that enables teachers to use their potentials to enhance pupils' learning. It should be acknowledged that teacher self-efficacy is related to perseverance; the stronger teaching efficacy, the greater the perseverance, and the greater the perseverance, the greater the likelihood that the teaching behaviors will be successful.

Previous studies reported that early childhood teachers' teaching efficacy affected teacher-child interactions [14-15]. Specifically, the more teaching efficacy early childhood teachers had, the more they were interested and actively participated in the activities with young children. Early childhood teachers with high teaching efficacy would strive for young children's development. They also used open-ended questions frequently, respected young children's autonomous attitude, and tried to accept their attempts and active participation.

On the other hand, even though teaching efficacy was distinguished from teachers' professional knowledge and skills, both of constructs were shown to have a significant correlation [16-18]. Moreover, early childhood teachers' high level of professionalism had a significantly positive influence on their teaching efficacy [17]. Therefore, it was inferred that early childhood teacher's recognition of professionalism would have an impact on their teacher-child interaction, and that their teaching efficacy would mediate this influence. Many researchers have agreed on the importance of early childhood teachers' interaction with young children, but few have examined the effects of professionalism and how teaching efficacy mediates these effects. In this study we presupposed that early childhood teachers' professionalism would influence their teacher-child interaction and aimed to verify the mediating effects of teaching efficacy in these relationships (see Figure 1). For this purpose, we proposed the following research question: Does early childhood teachers' teaching efficacy mediate the relationship between their professionalism and their teaching-child interaction?

2. Method

2.1 Participants and Procedure

The participants of the study were 761 early childhood teachers who were teaching young children aged 3 to 5 years. A purposeful sampling was used to recruit these participants, who were working at childcare centers or kindergartens in Metropolitan areas, South Korea. The researchers informed the subjects about their rights and ensured them that their participation in the survey was completely voluntary. Once the volunteers confirmed their participation, the researchers distributed the questionnaires and collected the completed ones by revisiting or mailing. All of the participants were females, and their average age was 31.54 years (range = 24 ~ 56, $SD = 7.57$). Of the subjects, 62.4% were married, and 37.6% were unmarried. In terms of education level, 45.7% graduated from university, 45.7% graduated from 2 ~ 3 year college, 6.0% graduated from graduate school, and 4.9% graduated from high schools.

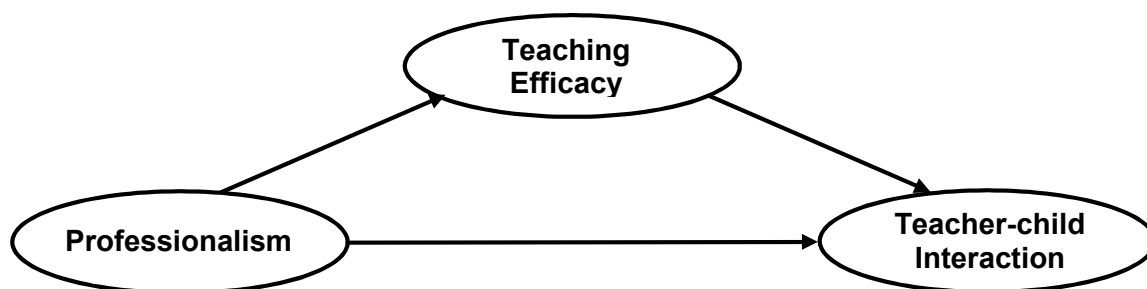


Figure 1. Conceptual Model of the Relationship among Study Variables

2.2 Instrument

Teachers' professionalism, an independent variable, was measured using the Scale of Teacher's Professionalism [19]. The scale consists of 53 statements rated on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) and has three subcategories: Development of knowledge and skills, self-understanding, and ecological development. Cronbach's α was .97 in this study.

Teaching efficacy, a mediating variable, was measured using the Teaching Efficacy of Early Childhood Teachers (TE-ECT) scale, which was developed and validated by Lee [20]. The scale consists of 25 statements rated on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) and has two subcategories: General teaching efficacy and personal teaching efficacy. Cronbach's α was .84 in this study.

Teacher-child interaction, a dependent variable, was measured using the Scale of Teacher-child Interaction, which was developed by Lee [21] and revised by Kwak [22]. The scale consists of 30 statements rated on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) and has three subcategories: Sensitive interaction, verbal interaction, and behavioral interaction. Cronbach's α was .90 in this study.

2.3 Data Analyses

Descriptive statistics, such as the means, standard deviations, and reliability coefficients of the study variables, were used to examine the data tendencies. Pearson's correlation coefficients were calculated between professionalism, teaching efficacy, and teacher-child interaction. A series of regression analyses suggested by Baron and Kenny [23] (1986) were conducted to test the proposed mediational model in the study. The Sobel test (1982) [24] was also conducted to verify the mediating effect of teaching efficacy. A low level of multicollinearity was found, with the values of the Variance Inflation Factor (VIF) = 1.55. The data analysis was conducted by SPSS version 25 software.

3. Results

The means, standard deviations, and correlations among the study variables are presented in Table 1. Having calculated a simple correlation coefficient in order to examine the interrelation between professionalism, teaching efficacy, and teacher-child interaction, both professionalism ($r = .72, p < .01$) and teaching efficacy ($r = .57, p < .01$) were revealed to have a statistically significant positive correlation with teacher-child interaction.

Table 1. Means, Standard Deviations, and Correlations among Study Variables (N = 761)

Variables	M	SD	1	2	3
1. Professionalism	3.91	.44	-		
2. Teaching Efficacy	3.29	.34	.60**	-	
3. Teacher-child Interaction	3.96	.45	.72**	.57**	-

** $p < .01$

Next, we conducted a series of regression analyses to verify the mediating effect of teaching efficacy on the relationship between professionalism and teacher-child interaction (see Table 2 & Figure 2).

Table 2. Results of Regression Analyses (N = 761)

Variables	F	t	β	R^2
Stage 1. Professionalism \rightarrow Teacher-child Interaction	833.25***	28.87***	.72	.52
Stage 2. Professionalism \rightarrow Teaching Efficacy	415.51***	20.38***	.60	.35
Stage 3. ①Professionalism & ②Teaching Efficacy \rightarrow ③Teacher-child Interaction	466.64***	① \rightarrow ③ 19.81*** ② \rightarrow ③ 6.87***	① \rightarrow ③ .60 ② \rightarrow ③ .21	.55

*** $p < .001$

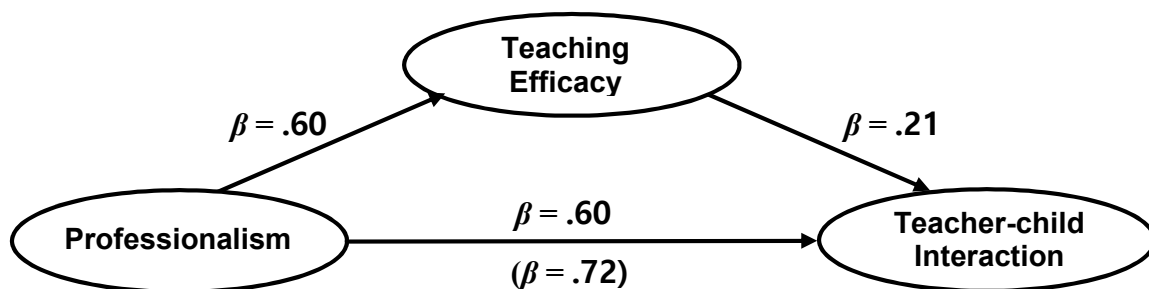


Figure 2. Results of Regression Analyses

Stage 1 demonstrated that early childhood teachers' professionalism had a significant impact ($F = 833.25, t = 28.87, \beta = .72, p < .001, R^2 = .52$) on the dependent variable of teacher-child interaction. Stage 2 demonstrated that early childhood teachers' professionalism had a significant impact ($F = 415.51, t = 20.38, \beta = .60, p < .001, R^2 = .35$) on the mediator variable of teaching efficacy. Finally, Stage 3, including both early childhood teachers' professionalism and teaching efficacy as independent variables, revealed that both of two variables had significant influence on teacher-child interaction ($F = 466.64, p < .001, R^2 = .55$; professionalism, $t = 19.81, \beta = .60, p < .001$; professionalism, $t = 6.87, \beta = .21, p < .001$). In addition, the standardized coefficient

of professionalism was reduced from $\beta = .72$ to $\beta = .60$, which implied the partial mediating effect of teaching efficacy. A significance test, provided by Sobel [24] for verifying the effect of the independent variable on the dependent variable via the mediator, yielded a result of $z = 15.97$ ($p < .001$). It was thus determined that early childhood teachers' teaching efficacy provided partial mediation between their professionalism and teacher-child interaction.

4. Conclusion and Discussion

The objective of the present study was to examine the relationship among early childhood teachers' professionalism, teaching efficacy, and teacher-child interaction. The results demonstrated that early childhood teachers' professionalism affected their teacher-child interaction not only directly but also indirectly through mediating variable of teaching efficacy. It can be inferred from this that early childhood teachers' professionalism leads to high teaching efficacy that results in positive teacher-child interaction in education practice. The results of this study, concluding that early childhood teachers' professionalism has a positive impact on teacher-child interaction, are generally supported by previous research [25]. The results are also consistent with the conclusions that professionalism leads to higher teaching efficacy [18, 26-27] and that higher teaching efficacy correlates with positive teacher-child interaction [13, 28-29].

While this study generally supports the previous findings, it also simultaneously integrates variables that had previously been examined only in isolation, revealing a dynamic and comprehensive relationship among them. The results of this study emphasize the importance of recognizing professionalism and having teaching efficacy for early childhood teachers, in order for them to interact with young children in supporting and facilitating child development. Our findings have proved importance of teachers' recognition of professionalism and development of teaching efficacy, which leads to young children's development through appropriate teacher-child interaction. The findings also give implications for developing re-education programs that support early childhood in-service teachers' professionalism and teaching efficacy.

There are a few limitations in the present study, and further research is required. First, we could not establish a causal order of the study variables because of the cross-sectional design. Future longitudinal research design is warranted to extend the present findings. Another limitation is that we only used self-report measures to assess the study variables. Future research including multiple types of assessments is encouraged. Finally, concerns about the convenience sampling method raise the issue of generalizability. Further researches need to take factors such as a representative national sample and multiple data sources into account.

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