

# Issues and Tasks for Early Childhood Education and Care Workforce in Korea

Eunhye Park

Seenyoung Park<sup>1)</sup>

Ewha Womans University

## Abstract

This research overviewed the present situation of Korean early childhood education and care workforce's certification, education and training, and working conditions, according to the elements to assure the quality of teachers. Results show that structure and condition of the initial teacher training system, certificating system, professional development system and working environment and treatment of kindergarten teachers were slightly better than child care center teachers', and national/public kindergarten teachers' were better than private kindergarten teachers'. The hidden issues behind it such as marginalization, traditional child care discourse and the underestimation of caring were pointed out, which must be considered in addition to the elements related to teachers' quality that appear on the surface, when the integration plan of kindergarten and child care center teachers is discussed.

**Keywords:** certificate system, initial training system, continuing professional development, working condition

---

Corresponding author, <sup>1)</sup>ehziboy@hotmail.com

## Introduction

Different longitudinal studies have shown that early childhood education and care (ECEC) not only supports children's education and development but also enhances national competitiveness in the long run (Camilli, Vargas, Ryan, & Barnett, 2010; Cunha, Heckman, Lochner, & Masterov, 2005; European Commission, 2011; Jung, Na, & Park, 2006). Due to the results of such studies and their concern about the importance of investment in ECEC, countries around the world have promoted various policies in this field. The Organization for Economic Cooperation and Development (OECD) categorized the goals of those policies as follows: (a) the influx of women into salaried employment, (b) the equitable reconciliation of work and family responsibilities of women, (c) increasing fertility, (d) ensuring equal beginnings in early childhood, and (e) ECEC as a public good (OECD, 2006: 20). In the reports about ECEC, titled *Starting Strong I* (2001), *Starting Strong II* (2006), and *Starting Strong III* (2012), the OECD led its member countries to build an education system for three-year-olds to preschool-aged children and an educational and care system for children under the age of three. *Starting Strong III* (OECD, 2012) especially emphasized the importance of the quality of ECEC. According to the OECD, Korea is a country with relatively low quality management, since its early childhood education and care systems are separate.

Originally, the functions of early childhood education system and early childhood care system in Korea dictated their separation. Kindergartens, under the jurisdiction of the Ministry of Education, ran half-day programs focusing on educating children, whereas child care centers, under the jurisdiction of the Ministry of Health and Welfare, ran all-day programs focusing on caring for children. In the mid-2000s, the issue of severely low fertility arose in Korea; thus, in order to somewhat relieve mothers of nurturing, the caring function was added to kindergarten by providing an after-school curriculum, and child care centers were encouraged to strengthen their education function. Consequently, the kindergartens and child care centers began performing very similar functions, especially for three-to-five-year-olds, although they continued to function separately in terms of jurisdiction, the law, target age, teacher qualification system, and so on.

The split ECEC system has gradually changed since the introduction of the Nuri system in 2012. Under the Nuri system, all five-year-olds in kindergartens and child care centers follow

a common education curriculum, and the government subsidizes their tuition fees. Then in March 2013, the government took another step toward integrating the ECEC system by extending the Nuri system to three- and four-year-olds (Ministry of Education, Science, and Technology, 2012, 01, 18).

After Park Geun-hye replaced Lee Myung-bak as president, the government began to develop policies to integrate these two systems. Since 2013, the government has prepared to initiate integration in several areas in 2015 (Office for Government Policy Coordination, Prime Minister's Secretariat, 2013, 05, 21). This includes the integration of information disclosure contents, the integration of card vouchers for kindergartens and child care centers, and the integration of the monitoring systems for kindergarten and child care centers (Park, 2015). Furthermore, the government will launch a task force to develop a policy regarding the integration of the training system for kindergarten teachers and child care workers.

The OECD (2005) specified professional training and better working conditions as essential to the ECEC system, in order to provide high-quality education and care service. Teachers have a strong influence on children's development and learning. Several studies have shown the relationship between support for teachers, such as thorough teacher training, reasonable pay, and good working conditions, and the quality of the ECEC (EC Childcare Network, 1996; Whitebook, Howes, & Phillips, 1998). Especially teachers who have majored in early childhood education are reputed for having warm and supportive interactions with children, and stimulating them (EPPE, 2004; Phillipsen, Burchinal, Howes, & Cryer, 1997). Thus, the OECD (2012) concluded that teachers' qualifications, pre-service education, and professional development influence the pedagogical quality and are strongly related to the children's ultimate outcomes. The characteristics of high-quality teachers are that they involve the children in the learning process, promote child-teacher or child-child interaction, and use different scaffolding strategies (Litjens & Taguma, 2010; OECD, 2012). Therefore, well-trained teachers' ability to foster a high-quality pedagogical environment directly influences the children's outcomes (Elliott, 2006; OECD, 2012). In addition, better working conditions enhance the teachers' job satisfaction and prevent them from leaving their jobs. This environment promotes more stable and sensitive interactions between the teachers and their students, and supports the latter's development (Huntsman, 2008; OECD, 2012; Shonkoff & Philips, 2000).

Korea is not the only country that has different qualifications and working conditions for kindergarten teachers and child care workers. In comparison with several other countries, since the functions of kindergartens and child care centers are not equivalent, except in Korea, the differences are rather valid, according to the sociocultural demand in each country (Shin, Park, & Kim, 2011). The OECD (2012) described the Nuri system as one of the good efforts of the Korean government to partly integrate and improve the quality of ECEC, and it also pointed out a wide gap in the qualifications and working conditions between kindergarten teachers and child care workers, who were due to adopt the same national curriculum.

At this juncture, before developing policies to integrate and reorganize the ECEC workforce, it is crucial to address the issues with the workforce to assure the delivery of high-quality ECEC services. Previous studies in Korea mainly focused on one sector of the ECEC services, without comparing the early childhood education and early childhood care sectors. Recently, some studies dealt with ECEC policies regarding workforce in both sectors (Kim, Kim, & Lee, 2014; Kim, Chang, & Cho, 2013), but they did not cover all factors of qualifications, training, and working conditions. Thus, this research aims to track the present situation in terms of the Korean ECEC workforce's qualifications, education and training, and working conditions, to ensure the quality of the teachers. The remainder of this paper consists of three parts: an overview of the context of ECEC in Korea, the quality of the ECEC workforce in Korea, and a discussion about the issues relating to ECEC in Korea.

## Context of ECEC in Korea

### *ECEC system in Korea*

As stated, ECEC in Korea comprises two separate systems. Despite the implementation of free education for five-year-olds through the Nuri system in 2012, and free education for three- and four-year-olds in 2013, the systems for early childhood education and care remain separate. Table 1 shows the main differences between the two sectors.

Table 1. *Comparisons between Kindergarten and Child Care Center*

	Kindergarten	Child Care Center
Jurisdiction	Ministry of Education	Ministry of Health and Welfare
Law	Early Childhood Education Act	Infant Care Act
Target Age	3 to 5-year-old	0 to 5-year-olds (up to 12-year-olds)
Teacher Certificate	Kindergarten Teacher Certificate	Child Care Worker Certificate
Running Hour	Morning care (Starting at 6:30) NURI(3-5 hours) After-School Afternoon Care(Finishing at 22:00)	Morning Care(Starting at 7:00) All day Care(12 hours) (NURI for 3, 4, 5-year-olds) Night Care(Finishing at 24:00)
Curriculum	3 to 5-year-olds: Nuri Curriculum	3 to 5-year-olds: Nuri Curriculum 0 to 2-year-olds: Standard Child Care Curriculum

According to Table 1, the Ministry of Education supervises the education sector called *Yuchiwon* (kindergarten). Kindergarten is a school for children between the ages of three and five years that precedes their entrance to elementary school. Only those possessing a kindergarten teacher certificate can work as full-time teachers. Under the Nuri system, the running time of kindergarten is three to five hours per day for Nuri curriculum, and most kindergartens operate an after-school curriculum in addition to the Nuri curriculum. There are national, public, and private kindergartens. Even though more than half of them are public, only about a quarter of the children enrolled in kindergarten are enrolled in these public schools.

The Ministry of Health and Social Welfare oversees the child care sector called *Eorinjip* (child care center). A child care center serves infants to five-year-olds. Only those who hold a child care worker certificate can work as full-time teachers. A child care center basically operates for 12 hours a day, from 7:30 AM to 7:30 PM, and during the daytime, the Nuri curriculum is implemented for 3-to-5-year-olds, similar to kindergarten. The classifications for the child care centers are national/public centers, social welfare corporation centers, corporate body centers, private centers, child care homes, corporate-parents centers, and employer-supported centers. Only about 5% of the child care centers are national/public, and about 10% of the children are enrolled in these types of child care centers.

*ECEC workforce in Korea*

This subsection presents the statistics pertaining to the ECEC workforce in Korea by type and sex. According to Table 2, there are 46,126 kindergarten teachers and 212,332 child care workers in Korea. Moreover, 76.16% of the kindergarten teachers and 82.49% of the child care workers work in the private sector. Furthermore, as in most countries, most of the kindergarten teachers and child care workers in Korea (98.4% and 99.0%, respectively) are female.

Table 2. *Number of ECEC Workforce by Type* N(%)

		Kindergarten(2014)		Child Care Center(2013)	
Public sector	National Kindergarten	23 (.05)		National/Public Center	18,792 (8.85)
	Public Kindergarten	10,974 (23.79)		Social Welfare Corporation Center	12,594 (5.93)
				Corporate-Body Center	5,783 (2.72)
Private sector	Private Kindergarten	35,129 (76.16)		Private Child Care Center	98,843 (46.55)
				Child Care Homes	70,074 (33.00)
				Corporate-Parents Center	489 (.23)
				Employer Supported Center	5,757 (2.71)
Total		46,126 (100.00)			212,332 (100.00)

Source: Korean Educational Statistics Service (2013). *Educational Statistics*. Retrieved March 16, 2015, from <http://kess.kedi.re.kr/index>

Source: Ministry of Health and Welfare (2013). *Statistics of Child Care*. Retrieved March 16, 2015, from <http://stat.mw.go.kr/front/statData/publicationView.jsp?bbsSeq=6&nttSeq=21410&menuId=40>

## Quality of the ECEC workforce in Korea

The OECD (2012) determined the factors that contribute toward enhancing the ECEC workforce's pedagogical quality, and studied the quality of the ECEC workforce in the OECD countries. Following the factors of the OECD, Table 3 provides a framework including the basic factors to consider and analyze to ensure the quality of the ECEC workforce in Korea.

Table 3. *Factors, Concepts, and Indicators of ECEC Workforce Qualification, Training and Working Conditions*

Factors	Concepts	Indicators
Initial teacher training system	Levels and types of initial training that ECEC workforce pursue to acquire knowledge, skills and competencies for working in ECEC field	<ul style="list-style-type: none"> <li>- Selection</li> <li>- Pedagogical practice</li> <li>- Statistics of ECEC workforce by education level</li> </ul>
Certificate	Certified level and types of knowledge, skills and competences that ECEC workforce have	<ul style="list-style-type: none"> <li>- Requirements of ECEC certificates</li> </ul>
Recruitment and Induction program	Conditions to place high-quality teachers in ECEC field and	<ul style="list-style-type: none"> <li>- Method of recruitment</li> <li>- Authority of recruitment</li> <li>- Providing induction program</li> </ul>
Professional development	Given opportunities for workforce who are working in the field to promote or improve their practices	<ul style="list-style-type: none"> <li>- Requirements of promoting certificates</li> <li>- Statistics of ECEC workforce by certificate level</li> <li>- Providers and Funders</li> <li>- Supervision and Evaluation</li> </ul>
Working condition	Structural quality indicators that can influence on ability of professionals to work well and satisfy with the workplace, tasks and nature of the job	<ul style="list-style-type: none"> <li>- Wage</li> <li>- Working hours</li> <li>- Turnover rates</li> <li>- Teacher-student ratio</li> </ul>

Source: OECD (2012). *Starting Strong III: A quality toolbox for early childhood education and care*. OECD Publishing. was reorganized.

### *Initial teacher training system in Korea*

Kindergarten teachers must achieve a minimum education requirement of ISCED level 5, while child care workers require a minimum of ISCED level 3. Most kindergarten teachers

undergo their training at four-year universities or two- or three-year junior colleges, majoring in early childhood education. On the other hand, child care workers receive their training at government-approved child care worker training centers, two- or three-year junior colleges, or four-year universities. The initial training system for child care workers is not based on a major but on the number of credits one obtains, which is the clearest distinction of the initial training system.

Tables 4 and 5 show the number of ECEC staffs by education level. According to Table 4, around half of the kindergarten teachers (50.3%) have completed an associate college degree or less, and the other half (49.6%) have completed a bachelor degree or higher. In public kindergartens, only 16.2% of the teachers hold an associate college degree or less, while 83.8% hold a bachelor degree or higher, whereas in private kindergartens, 61.1% of the teachers hold an associate college degree or less, and 38.9% hold a bachelor degree or higher.

Table 4. *Number of Kindergarten Teachers by Education Level (2013)*

ISCED levels		Public	Private	Total
ISCED 3	Upper secondary education	5( .1)	15( .1)	20( .1)
ISCED 5	Short-cycle tertiary education	1,774(16.1)	21,432(61.0)	23,206(50.3)
ISCED 6	Bachelor's or Equivalent level	5,368(48.8)	10,943(31.1)	16,311(35.4)
ISCED 7	Master's or Equivalent level	3,789(34.4)	2,453( 7.0)	6,242(13.5)
ISCED 8	Doctoral or Equivalent level	61( .6)	286( .8)	347( .7)
Total		10,997(100.0)	35,129(100.0)	46,126(100.0)

Source: Korean Educational Statistics Service (2013). *Educational Statistics*. Retrieved March 16, 2015, from <http://kess.kedi.re.kr/index>

Table 5 indicates that 81.1% of the child care workers have obtained an associate college or less, and 18.9% have completed at least a 4-year university education. There is a slight difference between the national/public and private child care centers in terms of the proportions of workers who have obtained an associate college education (67.3% and 69.7%, respectively). However, there is a gap in the proportion of child care workers who have obtained a four-year university education. As the table shows, 25.0% of the national/public child care center workers have completed a 4-year university education, as compared to 15.0% of the private child care center workers.

Table 5. *Number of Child Care Workers by Education Level (2013)*

ISCED levels	National/ Public	Social welfare corporation	Corporat e-body	Private	Child Care Home	Parents	Employer- supported	Total
ISCED 3	850 (5.9)	679 (5.1)	518 (8.9)	9,207 (14.2)	6,502 (21.3)	25 (11.4)	73 (2.7)	17,798 (13.5)
ISCED 5	9,698 (67.3)	9,598 (72.1)	3,914 (67.2)	45,189 (69.7)	19,047 (62.4)	128 (58.4)	1,540 (56.8)	89,120 (67.6)
ISCED 6	3,603 (25.0)	2,835 (21.3)	1,270 (21.8)	9,725 (15.0)	4,701 (15.4)	61 (27.9)	1,022 (37.7)	23,203 (17.6)
ISCED 7	259 (1.8)	200 (1.5)	122 (2.1)	713 (1.1)	275 (.9)	5 (2.3)	76 (2.8)	1,714 (1.3)
ISCED 8	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)
Total	15,410 (100.0)	13,312 (100.0)	5,824 (100.0)	64,834 (100.0)	30,525 (100.0)	219 (100.0)	2,711 (100.0)	131,835 (100.0)

Source: Ministry of Health and Welfare (2013). Statistics of Child Care. (Retrieved March 16, 2015, from <http://stat.mw.go.kr/front/statData/publicationView.jsp?bbsSeq=6&nttSeq=21410&menuId=40>)

Table 6 exhibits the selection criteria for Korea's initial teacher training system. With respect to both kindergarten teachers and child care workers, the certificate of the final examination results for upper secondary education and the performance at the upper secondary level are considered. The general entrance examination to tertiary education is only significant in the selection for the initial training system for kindergarten teachers. As regards the child care workers, there are qualifications from child care worker training centers besides associate colleges or university.

Table 6. *Selection in Initial Teacher Training System in Korea*

	National/Public Kindergarten	Private Kindergarten	Child Care Center
Certificate of final examination of upper secondary education	○	○	○
Performance at upper secondary level	○	○	○
General entrance examination to tertiary education	○	○	x
Performance at bachelor level	x	x	x
Literacy and numeracy test	x	x	x

Source: OECD (2012). *Starting Strong III: A quality toolbox for early childhood education and care*. OECD Publishing. was reorganized.

Table 7 represents the pedagogical practice in Korea's initial teacher training system. Kindergarten teachers require at least 50 credits in their major subject, and among those, more than 21 of these credits should be in the compulsory subjects. The child care workers must take six courses within the child care major, at least six courses in early childhood education, and one or two courses in other related subjects, such as development and instruction. Pre-practicum and teaching profession credits are part of the initial training system only for kindergarten teachers; moreover, one must earn more than the minimum grades and undergo personality and aptitude for teaching test twice during the initial training period.

Table 7. *Pedagogical Practice in Initial Teacher Training System in Korea*

	National/Public Kindergarten	Private Kindergarten	Child Care Center
Credits of major subject	○	○	○
Credits of required subjects	○	○	○
Credits of teaching profession	○	○	x
Credits of pre-practicum	○	○	x
Minimum credits grades	○	○	x
Checking teaching profession character	○	○	x

Source: OECD (2012). *Starting Strong III: A quality toolbox for early childhood education and care*. OECD Publishing. was reorganized.

### ***ECEC certification***

The professional qualifications that kindergarten teachers and child care staff require are different. Furthermore, within each category of teachers, there are different levels of certificate by educational attainment, seniority, and tenure. This section compares the second level of the kindergarten teacher certification and the second and third levels of the child care worker certification, which are the required certificates for introductory teaching staff. The professional development subsection will discuss the upper-level certificates. Tables 8 and 9 show the requirements for obtaining the kindergarten teacher and child care worker certifications. Under the Education Act, second-level kindergarten teachers can obtain their certification without a special examination, and the students of early childhood education in a

college or university must complete the credits that appear in Table 8.

Table 8. *Requirements for 2<sup>nd</sup> level Kindergarten Teacher Certificate*

	Requirements
	<ol style="list-style-type: none"> <li>1. Associate's degree or Bachelor's degree</li> <li>2. Graduate school designed by the Minister of Education</li> </ol>
2 <sup>nd</sup> level Teacher	<ol style="list-style-type: none"> <li>1. Get certificated without a special examination</li> <li>2. In a college or a university required to complete credits                             <ul style="list-style-type: none"> <li>- At least 50 credits of major course</li> <li>- At least 7 mandatory course, more than 21 credits</li> <li>- At least 22 credits of teaching profession courses</li> <li>- 12 credits of theory of teaching profession</li> <li>- 6 credits of teaching ability profession</li> <li>- 4 credits of practicum</li> <li>- Average grade of major course must be 75/100 or above, and 80/100 or above for teaching profession courses</li> </ul> </li> </ol>

Source: Ministry of Education (2008). Early Childhood Education Act, Article 22. (Retrieved 16 March, 2015, from <http://www.law.go.kr/lsInfoP.do?lsiSeq=150688&efYd=20140429#0000>)

Table 9 shows the requirements for obtaining a child care worker certificate. One can obtain this certification without an examination under the Enforcement Rule for the Infant Care Act, Article 12, paragraph 1. The second-level child care worker certificate is granted if the student has completed a total of 17 courses and at least 51 credits from courses related to child care.

Table 9. *Requirements for 3<sup>rd</sup> and 2<sup>nd</sup> level Child Care Worker Certificate*

	Requirements
3 <sup>rd</sup> level Child Care Workers	<ol style="list-style-type: none"> <li>1. High school diploma</li> <li>2. 1 year training program (by Ordinance of the Ministry for Health and Welfare Affairs)</li> </ol>
	<ol style="list-style-type: none"> <li>1. Associate's degree or Bachelor's degree</li> <li>2. 3<sup>rd</sup> level child care worker certificate and at least 2 years of child care experience and completion of the in-service training course</li> </ol>
2 <sup>nd</sup> level Child Care Workers	<ol style="list-style-type: none"> <li>1. Get certificated without a special examination</li> <li>2. Required to complete total of 17 courses and at least 51 credits related to child care                             <ul style="list-style-type: none"> <li>- 6 courses of child care major</li> <li>- At least 1 course from development and instruction</li> <li>- At least 6 courses of early childhood education</li> <li>- At least 2 courses of health, nutrition, and safety</li> <li>- At least 1 course from family and community cooperation</li> <li>- 1 course of practicum required</li> </ul> </li> </ol>

Source: Ministry of Health and Welfare (2014). Infant Act, Article 21. Retrieved 16 March, 2015, from <http://www.law.go.kr/lsInfoP.do?lsiSeq=154048&efYd=20150101#AJAX>

***Becoming a teacher: Recruitment and induction program***

There are differences in the recruitment method and authority between the national/public kindergarten teachers and the private kindergarten teachers and child care workers. As Table 10 indicates, in order to become a national/public kindergarten teacher, one must pass a very competitive examination. This examination is open to everyone who has or is about to obtain at least a second-level kindergarten teacher certificate. Meanwhile, there is no competitive examination, but rather a candidate list, for recruiting private kindergarten teachers and child care workers. The central education authority recruits and places the national/public kindergarten teachers, while the authority of each institute handles the recruitment and placement of the private kindergarten teachers and child care workers. Further, new teachers in the national/public and private kindergartens undergo an induction program.

Table 10. *Method and Authority of Recruitment and Induction Program by Type*

		National/Public Kindergarten	Private Kindergarten	Child Care Center
Method	Competitive examination	○	x	x
	Open recruitment	○	○	○
	Candidate list	x	○	○
Authority	School	x	○	○
	Local education authority	x	x	x
	Central education authority	○	x	x
	Induction program	○	○	x

Source: OECD (2012). *Starting Strong III: A quality toolbox for early childhood education and care*. OECD Publishing. was reorganized.

***Professional development***

In order for teachers to maintain their professional quality, they must pursue continuing professional development. One way to ensure this is to promote further certifications. Tables 11 and 12 show the requirements of each certification level. According to Table 11, after obtaining at least three years of teaching experience, second-level kindergarten certificate holders can apply for a promotion to the first-level certification. Upon approval, the applicants need to participate in 90 hours of qualification training. As Table 12 indicates, child care

workers who hold a second-level certificate also need 80 hours of in-service training to obtain a first-level certificate after obtaining 3 years of caring experience. However, the ECEC workforce in Korea does not have to renew certifications or advance to the next level.

Table 11. *Requirements for Promoting Kindergarten Teacher Certificate by Level*

Certificate promotion requirements	
1 <sup>st</sup> lever teacher	<ol style="list-style-type: none"> <li>2<sup>nd</sup> level teacher certificate and 3 or more years of teaching experience with prescribed in-service education</li> <li>2<sup>nd</sup> level teacher certificate and a master's degree with 1 years of teaching experience</li> </ol>
Head teacher (Senior teacher)	<ol style="list-style-type: none"> <li>1<sup>st</sup> or 2<sup>nd</sup> level teacher certificate and 15 or more years of teaching experience, and with outstanding teaching and researching qualification</li> </ol>
Vice-principal	<ol style="list-style-type: none"> <li>1<sup>st</sup> level teacher certificate with 3 or more years of teaching experience and prescribed in-service education</li> <li>2<sup>nd</sup> level teacher certificate with 6 or more years of teaching experience and prescribed in-service education</li> </ol>
Principal	<ol style="list-style-type: none"> <li>Vice-principal certificate with more than 3 years of teaching experience and prescribed in-service training</li> <li>Scholarly attainments and high moral repute, who fits the standard of the Presidential degree, and obtain an approval from the Ministry of Education</li> </ol>

Source: Ministry of Education (2008). Early Childhood Education Act, Article 22. (Retrieved 16 March, 2015, from <http://www.law.go.kr/lsInfoP.do?lsiSeq=150688&efYd=20140429#0000>)

Table 12. *Requirements for Child Care Worker Certificate Advancement by Level*

Certificate promotion requirements	
1 <sup>st</sup> lever Child Care Worker	<ol style="list-style-type: none"> <li>2<sup>nd</sup> level child care worker certificate and at least 3 years of child care experience and completion of the in-service training course</li> <li>2<sup>nd</sup> level child care worker certificate and a master's degree in early childhood education and at least 1 year of child care experience and completion of the in-service training course</li> </ol>
Principal	<ol style="list-style-type: none"> <li>Qualifications prescribed by Presidential Degree and who have acquired a certificate of qualifications approved and granted by Ministry of Health and Welfare Affairs</li> </ol>

Source: Ministry of Health and Welfare (2014). *Infant Act*. Retrieved 16 March, 2015, from <http://www.law.go.kr/lsInfoP.do?lsiSeq=154048&efYd=20150101#AJAX>

Tables 13 and 14 show the number of workers by certificate level. According to Table 13, 61.9% of kindergarten teachers hold a second-level kindergarten teacher certificate, which is the basic qualification for new teachers. Among the teachers in national and public kindergartens, 65.6% hold a first-level teaching certificate, whereas 13.6% of private kindergarten teachers have the same. Table 14 shows that 39.55% of child care workers have

a first-level child care worker certificate, and 38.44% hold a second-level child care worker certificate, which most beginning child care workers hold. Among the child care workers in national and public child care centers, 57.72% hold a first-level child care worker certificate, whereas 40.96% of those in private child care centers have the same.

Table 13. *Number of Kindergarten Teacher by Certificate Level (2013)*

	National/Public	Private	Total
2 <sup>nd</sup> level teacher	2,990(27.2)	25,569(72.8)	28,566(61.9)
1 <sup>st</sup> level teacher	7,212(65.6)	4,769(13.6)	12,002(26.0)
Advanced skills teachers	16( .1)	12( .0)	28( .1)
Vice principals	510( 4.7)	877(2.5)	1387( 3.0)
principals	245( 2.2)	3871(11.0)	4116( 8.9)
others	24( .2)	31( .1)	55( .1)
Total	10,997(100.0)	35,129(100.0)	46,126(100.0)

Source: Korean Educational Statistics Service (2013). *Educational Statistics*. Retrieved March 16, 2015, from <http://kess.kedi.re.kr/index>

Table 14. *Number of Child Care Worker by Certificate Level (2013)*

	National/ Public	Social welfare corporation	Corporate- body	Private	Child Care Home	Parents	Employer- supported	Total
3 <sup>rd</sup> level	221 ( 1.05)	192 ( 1.37)	135 ( 2.03)	6,068 ( 5.35)	6,085 ( 6.50)	15 ( 2.43)	48 ( .75)	12,764 ( 4.99)
2 <sup>nd</sup> level	6,396 (30.32)	4,627 (32.98)	2,084 (31.35)	46,280 (40.77)	35,907 (38.36)	209 (33.82)	2,870 (45.01)	98,373 (38.44)
1 <sup>st</sup> level	12,175 (57.72)	7,775 (55.41)	3,564 (53.62)	46,494 (40.96)	28,082 (30.00)	265 (42.88)	2,839 (44.52)	101,194 (39.55)
Principle	2,302 (10.91)	1,437 (10.24)	864 (13.00)	14,663 (12.92)	23,535 (25.14)	129 (20.87)	620 (9.72)	43,550 (17.02)
Total	21,094 (100.00)	14,031 (100.0)	6,647 (100.0)	113,505 (100.0)	93,609 (100.00)	618 (100.0)	6377 (100.0)	255,881 (100.00)

Source: Ministry of Health and Welfare (2013). *Statistics of Child Care*. Retrieved March 16, 2015, from <http://stat.mw.go.kr/front/statData/publicationView.jsp?bbsSeq=6&nttSeq=21410&menuId=40>

Other ways to continue professional development are to participate in education and training courses in forms such as workshops, conferences, subject training, field-based

consultation training, supervised practice, and mentoring. As Table 15 shows, the government, employers, universities/colleges, and non-governmental organizations provide such education and training programs. According to Table 16, some of these programs receive funding from the government, and some from the employer. However, the kindergarten teachers and child care workers pay for their own professional development.

Table 15. *Providers of Professional Development*

	Kindergarten	Child Care Center
Government	○	○
Employer	○	○
University/College	○	○
Non-government	○	○

Source: OECD (2012). *Starting Strong III: A quality toolbox for early childhood education and care*. OECD Publishing. was reorganized.

Table 16. *Funders of Professional Development*

	Kindergarten	Child Care Center
Government	○	○
Employer	○	○
Individual	○	○

Source: OECD (2012). *Starting Strong III: A quality toolbox for early childhood education and care*. OECD Publishing. was reorganized

As Table 17 demonstrates, the supervision of the kindergarten teachers' professional development takes place via regular meetings for discussing the process or problems, assistance with planning and assessing lessons, mentoring, participation in other teachers' class activities and/or observation, visits to other institutes, and an induction program. For the child care workers, there is minimal supervision; thus, assisting with lesson planning, assessments, and an induction program rarely occur.

The evaluation of the kindergarten teachers' professional development is mostly the responsibility of a head, the teacher him- or herself, of the parents. According to Table 18, there is no external evaluation of the teachers' professional development, neither on a regular basis nor under specific circumstances. Further, there is no formal evaluation of the professional development of the child care workers.

Table 17. *Supervision of Professional Development*

	National/Public Kindergarten	Private Kindergarten	Child Care Center
Regular meetings for the discussion of progress or problems	○	○	○
Assistance with the planning and assessment of lessons	○	○	x
Mentoring	○	○	○
Participation in other teacher's class activities and/or classroom observation	○	○	○
Special compulsory training	x	x	x
Visits to other schools/resource center	○	○	○
School leave	x	x	x
Induction program in place	○	○	x

Source: OECD (2012). *Starting Strong III: A quality toolbox for early childhood education and care*. OECD Publishing. was reorganized.

Table 18. *Evaluation of Professional Development*

	National/Public Kindergarten	Private Kindergarten	Child Care Center
External evaluator (Inspectorate in general) on a regular basis	x	x	x
External evaluator (Inspectorate in general under specific circumstances (such as promotion))	x	x	x
School head on regular basis	○	○	x
School head under specific circumstances (such as promotion)	○	○	x
Self-evaluation on a regular basis	○	○	x
Parent Evaluation on regular basis	○	○	x

Source: OECD (2012). *Starting Strong III: A quality toolbox for early childhood education and care*. OECD Publishing. was reorganized.

***Working condition of the ECEC workforce in Korea***

Factors of working condition which influence the quality of ECEC workforce and service includes wage, working hours, turnover rate, and teacher-student ratio.

Kindergarten teachers and child care workers have different wage systems. As Table 19 reveals, the starting salary for a kindergarten teacher depends on the teacher’s years of education and the institute where the teacher obtained initial teacher training. However, child care workers have the same starting salary, regardless of their education level, certification, and past initial teacher training courses. There are benefits in addition to base wage which is mentioned in Table 19.

Table 19. *Starting Wages for ECEC Workforce in Korea (2013)*

	Kindergarten teacher				Child care worker	
	2-year-junior college	3-year-junior college	4-year-university	4-year-college of education	Teaching staff	Principle
Starting Step	6	7	8	9	1	1
Starting base wage (except benefit) (USD/month)	1,542	1,582	1,623	1,664	1,434	1,731

Source: Ministry of Education (2014). *Public officials’ remuneration regulations*. Sejong, Korea: Ministry of Education.  
 Ministry of Health and Welfare (2013) *Guidelines for child care*. Sejong, Korea: Ministry of Health and Welfare

Table 20 shows the work hours of the ECEC workforce in Korea. Kindergarten teachers in private schools work one hour longer than those in national/public schools. The average work hours of child care center workers are similar to those of kindergarten teachers in private institutions. This in addition to the fact that the standard is for child care centers to operate 12 hours a day is noteworthy.

Table 21 indicates the turnover rate of the ECEC workforce in Korea in terms of average work experience, turnover experience, and plan to leave the field within a year. Among the national/public kindergarten teachers, only 16.2% have less than 6 years of work experience,

whereas this figure is 81.8% for the private kindergarten teachers. The average work experience of the child care workers is four years and five months. In addition, 64.2% of the child care workers have experienced turnover, which is higher than the kindergarten teachers. Lastly, 54.6% of the private kindergarten teachers reported plans to leave the field within a year.

Table 20. *Working Hours of ECEC Workforce in Korea* (h/day)

	National/Public Kindergarten	Private Kindergarten	Child Care Center
Working hours	8h 33m	9h 44m	9h 28m
Teaching hours	4h 58m	6h 14m	n.a
Breaking time	11m	14m	26m

Source: Kim, E., Chang, H., Cho, H. (2013). *An analysis on welfare of teachers for early childhood education and care and subsequent suggestions*. Seoul: Korea Institutes of Child Care and Education.

Table 21. *Turnover Rate of ECEC Workforce in Korea*

	National/Public Kindergarten		Private Kindergarten		Child Care Center
working experience	Under 5 years	16.2%	Under 5 years	60.8%	Average 4 years 5 months
	5-9 years	22.9%	5-9 years	21.0%	
	25-29 years	20.5%	25-29 years	1.6%	
Turnover experience	40.0%		50%		64.2%
Plan to leave the field within a year	Separated: 29.2% Combined: 17.7%		54.6%		National/Public: 49.3% Private: 46.9%

Source: Kim, Y. (2013). *Survey on human rights of child care workers*. Seoul: National Human Rights Commission of Korea.

Korean Educational Statistics Service (2013). *Educational Statistics*. Retrieved March 16, 2015, from <http://kess.kedi.re.kr/index>

Kim, E., Chang, H., Cho, H. (2013). *An analysis on welfare of teachers for early childhood education and care and subsequent suggestions*. Seoul: Korea Institutes of Child Care and Education.

Table 22 indicates the teacher–student ratio in ECEC. In child care centers, this ratio adheres to a national standard according to the ages of the children, whereas for kindergartens,

it varies in different localities. When comparing by age, the teacher–student ratio for kindergartens is lower than that for child care centers within the range of 3 to 8.

Table 22. *Teacher-Student Ratio in ECEC in Korea*

		National/Public/Private Kindergarten		Child Care Center	
Ratio	Half day program			Under 12months	1:3
	3-year-old	1:18		1-year-old	1:5
	4-year-old	1:24		2-year-old	1:7
	5-year-old	1:28		3-year-old	1:15
	Mixed age	1:23		4-year-old	1:20
	Full day program			5-year-old	1:20
	All ages	1:20			
(note)	Slightly different in Local		Nationally standardized		

Source: Seoul Metropolitan Office of Education (2012). *Guidelines for organization and management of curriculum for kindergartens in Seoul Metropolitan*. Notification No. 2012-7. Seoul: Seoul Metropolitan Office of Education.  
 Ministry of Health and Welfare (2014) *Guidelines for child care*. Sejong, Korea: Ministry of Health and Welfare.

## Issues of early childhood education and care workforce in Korea

This research overviewed the present situation of Korean ECEC workforce's qualification, education and training, and working conditions, according to the elements to assure the quality of teachers.

### *Summary and discussion*

In brief, the statistics about ECEC and its workforce indicate that the private sector of Korean ECEC outweighs the public sector. Thus, the majority of the ECEC workforce in Korea participates in the private sector, which largely influences the working conditions and wages of the ECEC staffs. Among the kindergarten teachers, the majority hold a second-level kindergarten teacher certificate, and most work in private kindergartens. In the public kindergartens, there are far more teachers holding first-level kindergarten teacher certificates than those with only second-level certification. In the case of the child care centers, there are more teachers holding a first-level child care worker certificate than the second-level

certification.

The lowest education level of the kindergarten teachers is an associate degree, and the minimum education level required to obtain a child care center teacher certificate is secondary education. While half of the teachers in kindergarten have completed a bachelor's degree, about 19% of the teachers in the child care centers have the same qualification. This result shows that there is a large difference between the kindergarten teachers and child care workers with respect to education. Howes, James, and Ritchie (2003) observed that preschool teachers with a bachelor's degree were the most effective in stimulating and responding to children and engaging them in learning activities. Furthermore, an EPPE study from England highlighted a relationship between the ECEC workers possessing higher qualifications, leadership skills, and many years of experience and high-quality ECEC services (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2010). That is, the ECEC workforce statistics suggest that the quality of kindergarten is higher than that of child care centers in relation to the quality of the teachers.

These statistical aspects of the ECEC workforce result from the differences in the initial teacher training, qualification, and professional development systems and work environment. Most kindergarten teachers undergo training in early childhood education in junior colleges and universities, and they require a minimum of 72 credits to major in this field. On the other hand, staffs in child care centers receive training in institutions, junior colleges, and universities regardless of their major, and they need a minimum of 51 credits in related fields. Training on matters related to ECEC ensure that the teachers are able to develop children's perspectives, integrate play and learning in their practice, stimulate early literacy development through improved vocabulary, solve problems, and develop appropriate lesson plans (OECD, 2012). The OECD (2012) also underlined the importance of the content of the initial teacher education or training; it must promote a profound understanding of the scope and sequence of the subject and its contents. In Korea, the discussion on the professional development of the teachers in child care centers has focused on the importance of advancing the regulation of the minimum level of education to obtain a teaching certificate, completing initial training in college departments instead of through credit systems, improving the certification system without examinations or adjusting the standards (Kim et al., 2014). It is necessary to consider these options for the reorganization of the ECEC training system.

However, the effects of the initial teacher education do not last forever. A characteristic of a well-trained teacher is the ongoing examination of his or her effectiveness by testing the retention of his or her pre-service education (Mitchell & Cubey, 2003). All members of the ECEC workforce in Korea can obtain a teaching certificate without an examination, and they do not need to renew their certificates or upgrade them (OECD, 2012). This signifies that the institutional framework of the professional development in the ECEC workforce is extremely poor, and that a strong motivation for the individuals to engage in continuous professional development is essential. As the paper discussed, the Ministry of Education regularly supervises the kindergartens in Korea, similar to other higher learning institutions; thus, it has laid the groundwork of professional development. In addition, the local Office of Education and its affiliated organization, the Early Childhood Education Promotion Agency, offer different kinds of training. However, teachers in child care centers have fewer opportunities for professional development, excluding the training programs at their disposal for advancing their certification level. When teachers engage in learning about what they need, they can develop in their profession (Mitchell & Cubey, 2003). Therefore, it is essential to improve integrated in-service teacher training programs aimed at the professional development of kindergarten and child care center teachers and offer them in a way that reflects each sector's needs and can lead to differentiated professional development.

Lastly, the teachers working conditions and wages in Korean ECEC are as follows. First, the starting salary of kindergarten teachers with the minimum level of education is slightly higher than that of the child care center workers. For the kindergarten teachers, the base wage depends on their educational background and teacher training institute. On the other hand, all child care center workers start at the same base wage, regardless of their educational background or qualifications. This is a barrier for teachers with a high level of education, high qualifications, and vast work experience, who wish to work in child care centers. That is, low wages affect quality “primarily by preventing qualified and committed individuals from considering working in child care or early education in the first place” (Manlove & Guzella, 1997; OECD, 2012: 156). Moreover, there is a large difference between the salaries of kindergarten teachers and child care center workers. In the case of private kindergartens, maintaining the teachers' wages at the level of those in public kindergartens is the norm, however it is not strictly met. Furthermore, child care centers that do not receive government

aid pay wages according to their own financial status, which causes a large deviation among institutes. In other words, an improvement by means of establishing and maintaining a consistent pay system is essential because specific regulations for teachers' salaries is insufficient for ECEC institutions, except in public kindergartens and public child care centers (Hwang, 2012).

Moreover, on average, teachers in private kindergartens and child care centers work for nine-and-a-half hours per day. This is because most kindergartens offer an after-school curriculum without hiring extra teachers to deliver this after-school curriculum, and the standardized hours of operation of child care centers is 12 hours per day. The ECEC teachers do not have enough time to plan lessons and prepare their teaching materials because they have to take care of the children during most of their time at work. Thus, the placement of teachers to take charge of the after-school curriculum and/or of the hiring of assistant teachers would seem essential (Kim et al., 2014). Yet the recognition and treatment of the assisting ECEC workforce will be lower than the current standards, and this vicious cycle will have further negative effects on the teachers' quality and their treatment. Therefore, it is necessary to consider more flexible and effective solutions, without marginalizing the female workers, than hiring temporary, part-time, female assistants.

### ***Stratification and marginalization of ECEC workforce in Korea***

Considering the factors related to the quality improvement of the ECEC workforce in Korea, the first issue that arises is the stratification and marginalization among the ECEC workforce. Since most of the employees in the ECEC field are female, and they target the most powerless and youngest children, those working in the field have traditionally faced marginalization. Moreover, further stratification and marginalization occurs to teachers in public kindergartens, private kindergartens, and child care centers according to their levels of certification and education, working conditions, and wages. It is necessary to narrow the gaps in socioeconomic status between the different types of teachers in order to improve the problem of marginalization in the ECEC workforce.

When the Korean government applied the Nuri curriculum to both kindergartens and child care centers, the staff of the latter obtained the designation of "teachers" rather than "child

care workers.” Along with offering equal status, the government increased the benefits for child care teachers who had implemented the Nuri curriculum by USD 300 per month in order to close the gaps between the wages of the child care teachers and kindergarten teachers. Moreover, since the private sector of the Korean ECEC outweighs the public sector, the government recognized the importance of making the rewards equivalent for the public and private kindergarten teachers. Yet, as mentioned above, the placement of temporary part-time staff to help with the after-school curriculum and to offer other assistance to reduce the burden on the full-time teachers may promote stratification and marginalization among the ECEC workforce.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) (2011) and the OECD (2012) have recommended that teachers in early childhood education obtain equivalent levels of education with primary school teachers, which is a bachelor’s degree or higher in Korea. Regarding this recommendation and the regulations under the Nuri system for both kindergartens and child care centers to operate the Nuri curriculum for three-to-five hours, Park, Park and Choi (2013) suggested separating teachers not by type but by function. Kim, Chang and Cho (2013) proposed that ECEC teachers work double shifts as another way to improve the ECEC work environment.

In conclusion, it could be a solution for the teachers applying the Nuri curriculum for three-to-five hours per day to hold a bachelor’s degree and to strengthen their educational pedagogy, and for the teachers in charge of the after-school curriculum and caring to obtain more training to improve their professional caring. This would enable the training, examination, and placement of teachers according to their professional competence.

### *Underestimating of caring*

The second issue of note is the necessity of elevating the value of women working in caring professions. Among the five aims that the OECD (2006) presented, Korea has mostly invested in ECEC with the aim of facilitating women’s entry into the labor market and improving the country’s low birth rate. In promoting women’s entry into the labor market in the 1990s, the low social value of caring allowed for lower qualifications to work in child care centers as well as the lesser treatment of such workers as compared to kindergarten teachers. This is

because many recognized nurturing as the work of unpaid, female, domestic workers, like household labor (Osgood, 2009). Indeed, the socioeconomic value of the unpaid work that women do in the home, without professional training, continues to be of little regard. There continues to be difficulty in recognizing the association between professional, highly education and qualified workers and work that women typically do. In particular, the plan to support child care center services and facilitate women's entry into the labor market has resulted in the devaluation of the labor of child care workers in another dimension. In the labor market, where females are tacitly unfavorable, the male workforce cannot regard positively one cheap workforce using another cheap workforce. This is a matter that will continue to be difficult to improve unless the policymakers and enforcers make a deliberate attempt to change the strongly male-dominated culture (OECD, 2006).

The perspective of women leaving the duty of nurturing to the ECEC services has changed since the mid-2000s, when the severe problem of the low birth rate emerged. To improve this situation, the Korean government expanded the ECEC services to lessen the physical, economic, and psychological burden on women, and thus improve the birth rate, and started offering massive financial support for care services. As a result, the general child care system opened up not just to the children of working mothers but to all children up to five years of age. As Osgood (2009) demonstrated, the government followed the process of forming a professional discourse of the ECEC workforce. In other words, middle class mothers searched for high-quality ECEC services, and the Korean government provided a top-to-bottom policy and regulations to improve the profession by creating a professional discourse for the ECEC workforce, expecting that it would result in middle class women producing additional children. Osgood (2009) pointed out the reason why the government invest for high-quality ECEC teachers by insisting that if the government simply presents a regulation, without offering a reward or benefit to the ECEC workforce, then such discourse will fail.

## Conclusion

Since the Korean early childhood education and care systems have functioned separately, there are differences in terms of the supervisory department, training process, qualification

system, examination and placement, opportunities for professional development, work environment, and treatment. The training process, qualifications, professional development, work environment, and treatment of kindergarten teachers has been slightly better than in the case of child care center teachers, and the kindergarten teachers in the public sector have been better off than their counterparts in the private sector. Since the application of the Nuri system in 2012 for five-year-olds and in 2013 for three- and four-year-olds, the functions of Korean kindergartens and child care centers have become similar (Park et al., 2013). The consequent stratification of the teachers teaching the same age group, and the numerically strong teacher group's marginalization, will affect the quality of the ECEC workforce and services in general. Therefore, in the discussion of the integration plan for kindergartens and child care centers, it is crucial to consider the hidden issues, such as marginalization, traditional child care discourse, and the underestimation of caring, in addition to the elements on the surface that relate to the quality of the teachers.

This study only focused on the qualifications and working conditions of the Korean ECEC workforce. Since the OECD (2006) highly recommended integrating the early childhood education system into the Ministry of Education, most of the OECD countries, except Finland, Korea, and Japan, did so for three-to-five-year-olds and with regard to the teachers' qualifications. Therefore, it would be valuable for future studies to compare the statistics regarding the ECEC workforce internationally and the cases of such integration in other countries.

## Reference

- Camilli, G., Vargas, S., Ryan, S., & Barnett, S. W. (2010). Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers College Record*, 122(3), 579-620.
- Cunha, B., Heckman, J., Lochner, L., & Masterov, D. (2005). *Interpreting the evidence on life cycle skill formation*. Retrieved 16 March, 2015, from <http://www.nber.org/papers/w11331.pdf>
- Elliott, A. (2006). Early Childhood Education: Pathways to quality and equity for all children.

- Australian Education Review*, 50, Australian Council for Educational Research.
- EPPE (2004). *Technical paper 12. The final report: Effective pre-school education*. London: Institute of Education, University of London. Retrieved 16 March, 2015, from [https://www.ioe.ac.uk/EPPE\\_TechnicalPaper\\_12\\_2004.pdf](https://www.ioe.ac.uk/EPPE_TechnicalPaper_12_2004.pdf)
- European Commission Childcare Network (1996). A review of services for young children in the European Union 1990-1995. Retrieved 16 March, 2015, from <http://aei.pitt.edu/41462/1/A5560.pdf>
- European Commission (2011). *Early childhood education and care: Providing all our children with the best start for the world tomorrow*. Brussels: EU. Retrieved 16 March, 2015, from <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0066:FIN:EN:PDF>
- Howes, C., James, J., & Ritchie, S. (2003). Pathways to effective teaching. *Early Childhood Research Quarterly*, 18, 104-120.
- Huntsman, L. (2008). *Determinants of quality in child care: A review of the research evidence*. Centre for Parenting and Research, NSW Department of Community Services. Retrieved 16 March, 2015, from [http://www.community.nsw.gov.au/docswr/\\_assets/main/documents/research\\_qualitychildcare.pdf](http://www.community.nsw.gov.au/docswr/_assets/main/documents/research_qualitychildcare.pdf)
- Hwang, O. (2012). Current working conditions for the teachers in child care. *Journal of Korean Association of Child Care and Education*, 8(2), 249-272.
- Kim, E., Chang, H., Cho, H. (2013). *An analysis on welfare of teachers for early childhood education and care and subsequent suggestions*. Seoul: Korea Institutes of Child Care and Education.
- Kim, E., Kim, G., & Lee, Y. (2014). *An analysis on teacher education and certification system for early childhood education and care*. Seoul: Korea Institutes of Child Care and Education.
- Kim, Y. (2013). *Survey on human rights of child care workers*. Seoul: National Human Rights Commission of Korea.
- Korean Educational Statistics Service (2013). Educational Statistics. Retrieved March 16, 2015, from <http://kess.kedi.re.kr/index>
- Litjens, I., & Taguma, M. (2010). *Literature overview for the 7<sup>th</sup> meeting of the OECD Network on Early Childhood Education and Care*. Paris: OECD. Retrieved 16 March,

- 2015, from [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/EDPC/ECEC\(2010\)3/REV1%20&doclanguage=en](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/EDPC/ECEC(2010)3/REV1%20&doclanguage=en)
- Manlove, E. E., & Guzell, J. R. (1997). Intention to leave, anticipated reasons for leaving, and 12-month turnover of child care center staff. *Early childhood research quarterly*, 12(2), 145-167.
- Ministry of Education (2008). *Early Childhood Education Act*. Retrieved 16 March, 2015, from <http://www.law.go.kr/lsInfoP.do?lsiSeq=150688&efYd=20140429#0000>
- Ministry of Education (2014). *Public officials' remuneration regulations*. Sejong, Korea: Ministry of Education.
- Ministry of Education, Science and Technology. (2012, January 18). Expansion of NURI system for 5-year-olds to 3 and 4-year-olds. *Ministry of Education, Science and Technology*, Seoul.
- Ministry of Health and Welfare (2013). *Guidelines for child care*. Sejong, Korea: Ministry of Health and Welfare.
- Ministry of Health and Welfare (2013). Statistics of Child Care. Retrieved March 16, 2015, from <http://stat.mw.go.kr/front/statData/publicationView.jsp?bbsSeq=6&nttSeq=21410=40>
- Ministry of Health and Welfare (2014). *Guidelines for child care*. Sejong, Korea: Ministry of Health and Welfare.
- Ministry of Health and Welfare (2014). Infant Act. Retrieved 16 March, 2015, from <http://www.law.go.kr/lsInfoP.do?lsiSeq=154048&efYd=20150101#AJAX>
- Mitchell, L., & Cubey, P. (2003). *Characteristics of professional development linked to enhanced pedagogy and children's learning in early childhood settings: Best evidence synthesis*. Retrieved 16 March, 2015, from <http://www.nzcer.org.nz/system/files/bes-professional-development.pdf>
- OECD (2001). *Starting strong: Early childhood education and care*. OECD Publishing.
- OECD (2005). *Teachers Matter. Attracting, developing and retaining effective teachers*. Paris: OECD.
- OECD (2006). *Starting strong II: Early childhood education and care*. OECD Publishing.
- OECD (2012). *Starting strong III: A quality toolbox for early childhood education and care*. OECD Publishing.

- Osgood, J. (2009). Childcare workforce reform in England and 'the early years professional': A critical discourse analysis. *Journal of Education Policy*, 24(6), 733-751.
- Park, E., Park, S., & Choi, H. (2013). A study on the status of kindergartens' operating hours by using information disclosure data. *Journal of Educational Studies*. 44(2), 97-118.
- Park, S. (2015). An analysis on policy networks of early childhood education from 1993 to 2013. Unpublished doctoral dissertation, Ewha Womans University, Seoul, Korea.
- Phillipsen, L., Burchinal, M., Howes, C., & Cryer, D. (1997). The prediction of process quality from structural features of child care. *Early Childhood Research Quarterly*, 12, 281-303.
- Prime Minister's Secretariat (2013. May 21). Promises to complete integration of early childhood education during the President's five-year term, actively accepting parents' opinions. *Prime Minister's Secretariat*, Sejong: Korea.
- Seoul Metropolitan Office of Education (2012). *Guidelines for organization and management of curriculum for kindergartens in Seoul Metropolitan*. Notification No. 2012-7. Seoul: Seoul Metropolitan Office of Education.
- Shin, E., Park, E., & Kim, B. (2011). *A study on reinforcement of 3 and 4 years old children support system*. Seoul: Ministry of Education, Science and Technology.
- Shonkoff, J., & Phillips, D. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington DC: National Academy Press.
- Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2010). *Early childhood matters: Evidence from the effective pre-school and primary education project*. London: Routledge.
- UNESCO (2011). *International standard classification of education*. Montreal, Canada: UNESCO Institute for Statistics. Retrieved 16 March, 2015, from [http://www.uis.unesco.org/Education/Documents/UNESCO\\_GC\\_36C-19\\_ISCED\\_EN.pdf](http://www.uis.unesco.org/Education/Documents/UNESCO_GC_36C-19_ISCED_EN.pdf)
- Whitebook, M., Howes, C., & Phillips, D. (1998). *Who cares? Child care teachers and the quality of care in America: Final report of the National Child Care Staffing Study*. Oakland, CA: Child Care Employee Project. Retrieved 16 March, 2015, from <http://www.irlle.berkeley.edu/cscce/wp-content/uploads/2010/07/Who-Cares-full-report.pdf>