Development and Reflection on Early Childhood Education in U.S. Higher Schools

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Abstract

Early childhood education at higher schools is a type of education to train early childhood teachers for children 0–8 years old that have developed very quickly and made a great progress in the United States of America. The paper is to introduce the developmental status and features of early childhood education at the U.S. higher schools. Investigation shows that there are at least 228 colleges and universities with early childhood education major, focusing on "higher educational level", "various major fields", "practicable degree plans", "diverse instructional methods", "strict teacher certification" and "networking". At meantime, there is a "confused professional boundary" about early childhood education at the U.S. higher schools, which has some negative influences on training early childhood teachers. We consider that "preschool education" is more suitable than "early childhood education" as a major paralleled with "elementary education", "secondary education" and "higher education" at higher schools.

Key words: early childhood education; preschool education; teacher education; higher schools; United States of America (U.S.A.).

Introduction

Teacher education includes pre-service and in-service training, and early childhood education at higher schools is the main aspect of early childhood teacher education. Early childhood education¹ at higher schools is a type of education to train the early childhood teachers for children 0–8 years old and has developed very quickly and made great progress in the United States of America (U.S.A.).

At present, more and more researchers have paid attention to issues about early childhood teacher education of the U.S., and they have mainly involved in its developmental history, features and trends (Yang, 2006; Wang, 2008, pp. 8-11; Li, 2011; Blank, 2010; Yang & He, 2013); educational aims or quality requirements (Cao, Wang, Tian & Shmizu, 2013; Bueno, Darling-Hammond & Gonzales, 2010; Mevorach & Miron, 2011; Ganey, 2010; Romeyn, 2010; Kim & Kemple, 2011; Xie & Lu, 2008), curricular (Kim, 2013; LoCasale-Crouch et al., 2011), methods (Androutsos, 2014; Chapman, 2014; Conroy, Sutherland, Vo, Carr & Ogston, 2014; Curenton & Zucker, 2013; Souto-Manning & Biglan, Layton, Jones, Hankins & Rusby, 2013; Weigel, Weiser, Bales & Moyses, 2012; Singh, Lancioni, Winton, Karazsia & Singh, 2013; Heisner & Lederberg, 2011; Ji, 2011; Dunst, Trivette & Deal, 2011; Mead & Carey, 2011, p. 3; Mitchell, 2010; Tal, 2010; Bayat, 2010; Morris, Raver, Millenky, Jones & Lloyd, 2010); reflections on the training programmes (Saracho, 2013; Chen & McCray, 2012; Fults & Harry, 2012; Piasta et al., 2012; Kim, Chang & Kim, 2011; Pelletier, 2010; Wang & Ding, 2010) and strategies (Rivkin, 2014; Whitebook at al., 2012, p. 27; Bridges, Fuller, Huang & Hamre, 2011; Abbate-Vaughn, Paugh & Douglass, 2011; Pianta, 2011; Nicholson & Reifel, 2011; Guo, Justice, Sawyer & Tompkins, 2011; Lasser & Fite, 2011; Arslan, 2010). However, there are still few studies analyzing the developmental status of early childhood education at the U.S. higher schools. The purpose of the paper is mainly to introduce the status and features of early childhood education at the U.S. higher schools in order to provide some experiences for the other countries.

1 Historical context on early childhood education at the U.S. higher schools

Early childhood teacher education in the United States has a long history and rich experiences. Without early childhood normal school, early childhood teacher education has at present changed from directed normal education to non-directed normal education in the United States; and the history is roughly divided into the normal school period (18th century to the end of the 19th century), the normal college period (end of the

[&]quot; "Preschool education" means a type of education for 0–5 or 6 years old children in the paper.

19th century to the middle of the 20th century) and the normal university period (Yang & He, 2013; Li, 2011; Blank, 2010; Wang, 2008, pp 8–11; Yang, 2006).

1.1 Normal school's period (18th century – end of the 19th century)

In the 19th century, Froebel kindergarten was introduced into the United States and not paid too much attention because there was then no example for a woman and teacher to be provided college level training, and early childhood teacher were trained by means of Apprenticeship Training. In the period, preschool education in the United States had changed from nursery schools into the charity kindergartens into public kindergartens; during the 1820s – 1830s, some secondary normal schools were established, where enrolled in the graduates in primary school (eight-year), trained about 1–4 years and mainly provided general education and teacher certification. In 1868, Elizabeth Pebody (1804–1894) set up the first preschool normal school in Boston; and in 1874, the Department of Preschool Teacher Training was established at the City College of New York and provided young women with pre-service training with preschool education courses such as "Theory of Froebel", "Game", "Music" and "Art", etc.; and in 1880, Eudora Hailman established the first pre-school teacher training constitution "Wisconsin State Normal School". During the 1880s – 1890s, there were eight preschool normal schools with the "Infant observation" course and made the preschool teachers learn the "Methodology of Kindergarten".

1.2 Normal college's period (late 19th century – middle of the 20th century)

Before and after the first world war, kindergartens had already been attached to primary schools in the United States, and higher normal colleges have gradually trained teachers at all levels, mainly enrolled the graduates from senior high schools, and there are few teachers with a four-year bachelor degree. Before the World War II, early childhood teachers were mainly trained at normal colleges with 250 in 1948, and the number of preschool normal schools had decreased from 325 in 1919 to 60 in 1947.

1.3 Normal university's period (after the middle of the 20th century)

Since the middle of the 20th century, due to national policies and guidance, the United States have further reformed and improved the training modes of early childhood teachers and established a high starting point, complete system and an operative early childhood teacher education system. After the World War II, more and more normal colleges had gradually been expanded into comprehensive universities or subsumed

into comprehensive universities, and early childhood teachers had mainly been trained at the Department of Education of Arts and Sciences Colleges and the College of Education of the Comprehensive University. On the one hand, preschool normal schools were gradually disappeared, and there are less and less normal colleges. There was no preschool normal school, and there were 100 normal colleges in the 1960s, however, there were only 7 normal colleges in 1980s. On the other hand, there were stricter requirements for enrollments qualifications, academic years and educational levels for early childhood teachers. For example, after 1970, the grade points of the teachers applicants GPA should be more than 2 or 2. 5 (out of 4), and after 10 years, academic years of the teacher applicants were extended to 4 or 5 years, early childhood teachers had to at least earn an associate degree (most with a bachelor's degree), and succeed in the training programs of professional accreditation and gotten "early childhood teaching certificate" or "elementary school teacher's certificate" (usually dominated by early teacher certification). At present, there are at least 228 higher schools with early childhood education major in the United States².

In summary, the United States had more than 150-year developmental history and has at present set up an open, professional, diverse and high-quality system in early childhood teacher education.

2 Developmental status of early childhood education at the U.S. higher schools

In order to understand the developmental status of early childhood education at the U.S. higher schools, we mainly analyze the total status, professional focuses, curricular system, graduation requirements and career options of early childhood education majors at 228 U.S. higher schools.

2.1 Total status

Investigation tells us that there are at least 228 higher schools with early childhood education and four-level degrees including 210 colleges or universities with undergraduate programs, 162 with master programs, 78 with doctor programs and 33 with specialists in the United States; at the meantime, there are more colleges and universities in the

We mainly investigate the status on early childhood education majors in 170 best universities with education, 201 best comprehensive universities and 180 best arts and sciences colleges in 2014 (Retrieved from http://www.coe.uga.edu/academics/degrees/eds; http://usa.bailitop.com/ranking/20130111/20053.html; http://www.zinch.cn/top/university/367584/2014/367595; http://usa.bailitop.com/ranking/20121031/16561.html.)

Middle Atlantic, Upper Mississippi (Great Lakes) and South East than the Rocky Mountain state, New England and the Pacific (see table 1).

Table 1
Number and distribution of early childhood education in USA higher schools

Districts	Number of States	Number of Universities	Number of Bachelor	Number of Master	Number of Doctor	Number of Specialists
New England	6	14	12	12(2)	4	1
Middle Atlantic	8	62	51	41(11)	14	4
South East	4	27	27	17	9	6
South	6	19	19	16	11	6
Mid-west	8	20	20	16	10	6
Upper Mississippi (Great Lakes)	5	40	39	22(1)	10	6
Rocky Mountain state	6	10	10	10	8	2
Pacific	5	17	13	13(4)	4	2
South-west	3	18	18	15	8	0
Total	52	227	209	162(18)	78	33

Especially, the Education Specialist or Specialist in Education (EdS) are an advanced terminal degree in the United States that are designed for individuals who wish to develop advanced knowledge and theory beyond the master's degree level, but may not wish to pursue a degree at the doctoral level and provide the necessary background and professional expertise for students planning to go into university teaching, supervisory or leadership roles in post secondary schools, curriculum planning, consultant work, or similar positions.

2.2 Professional focuses

Investigation shows us that instruction and research on early childhood education at 228 U.S. colleges and universities with the early childhood education major mainly focus on some fields or issues such as "early childhood education" (birth – Grades three), "early childhood and special education", "early childhood and elementary education", "early childhood and middle childhood education", "early childhood and child development", "early childhood and family", "early childhood and languages education", "early intervention", etc. (see table 2).

Table 2 Focuses and its frequencies of early childhood education major in USA higher schools

Educational levels	Bachelor		Master		Doctor	
	(1)	Early childhood education (preschool) (141);	(1)	Early childhood education (preschool) (130);	(1)	Early childhood education (preschool) (40);
Focuses and frequencies	(2)	Early childhood special education (43);	(2)	Early childhood special education (53);	(2)	Early childhood special education (11);
	(3)	Birth-grade 3 (Prek-grade 3, P-grad 3) (29);	(3)	Primary or elementary education (18);	(3)	(Middle) childhood education (4);
	(4)	Grade 4–12 (24);	(4)	(Middle) childhood education (15);	(4)	Family (3);
	(5)	Child development (26);	(5)	Birth-grade 3 (Prek-grade 3, P-grad 3) (13);	(5)	Child development (3);
	(6)	Primary or elementary education (19);	(6)	Grade 4–12 (7);	(6)	Birth-grade 3 (PreK-Grad 3, P-Grad 3) (2);
	(7)	(Middle) childhood education (11);	(7)	Child development (9);	(7)	Primary or elementary education (2);
	(8)	Family (10);	(8)	Family (5);	(8)	Society (2);
	(9)	(Dual) language or bilingual education (6);	(9)	(Dual) language or bilingual education (4);	(9)	Early intervention (2);
	(10)	Early intervention (6);	(10)	Early intervention (7);	(10)	(Dual) language education (1);
	(11)	Science education (mathematics) (4);	(11)	Interdisciplinary early childhood education (4);	(11)	Child psychology (1);
	(12)	Multicultural education (2);	(12)	Science education (1);	(12)	Interdisciplinary early childhood education (1);
	(13)	Society (2);	(13)	Multicultural education (1);	(13)	Multicultural education (1);
	(14)	Arts and physical education (2);	(14)	Arts education (1);	(14)	Play (1);
	(15)	Interdisciplinary early childhood education (1);	(15)	Child psychology (1);	(15)	Grade 4–12 (0);
	(16)	Technology education (1);	(16)	Society (1);	(16)	Arts education (0);
	(17)		(17)	Play (1);	(17)	Science education (0);
	(18)	Child psychology (0).	(18)	Technology education (0).	(18)	Technology education (0).

In addition, "interdisciplinary early childhood education", "play" and "child psychology" are in some degree strengthened in graduate education of some higher schools.

2.3 Curricular system

About the curricular systems of early childhood education at the U.S. universities, there are mainly "vertical" and "horizontal" modes, the former directly introduces the curricula according to the academic years, and the latter does the curricula according to different

classification standards. It is true that curricula are usually divided into different types at different U.S. higher schools.

Curricula for the bachelor at the U.S. higher schools are mainly divided into two types such as "General Educational Requirements" and "Core Professional Requirements" at the University of New Mexico³; three types such as "General Courses", "Major Courses" and "Elective Courses" at the Wittenberg University⁴; four types such as "General Studies Requirements", "Required Studies in Psychology", "Required Studies in Mathematics" and "Required Studies in Education" at the Saint Vincent College⁵; and five types or more than five types such as include "Social Contexts of Early Childhood Education", "Critical Perspectives in Early Childhood Education", "Global, Comparative Early Childhood", "Major Theorists in Early Childhood", "Early Childhood Education Programs", "Theories of Curriculum for Prekindergarten and Kindergarten", "Parents and Education", "Play & Early Development" and "Early Childhood Education Program Development" at the University of Texas at Austin⁶.

Curricula for the master of early childhood education at the U.S. higher schools are mainly divided into two types such as "Required Courses" (3 credits each) and "Approved Electives" (Choose Three Courses, nine credits total) at the George Mason University?; three types such as "Required Core Courses", "Professional Area" and "Specialty Area" at the East Carolina University8; four types such as "Core Requirements", "Specialization Requirements", "Exit Examination/Final Project" and "Thesis" at the he Ohio State University9; and five or more than five types such as "Critical Perspectives on Childhood Education", "Early Childhood Teacher Education", "Inquiry in Play", "Parents and Education", "Research Seminar", "Social Construction of Thinking in Childhood", "Social Contexts of Childhood Education" and "Theories of Childhood" at the University of Texas at Austin¹⁰.

Curricula for the doctor degree at the U.S. higher schools are usually divided into three types such as "College of Education Professional Core", "C & I Professional Core" and "Early Childhood Specialty Area" at the Southern Illinois University¹¹; four types such as "Research Methods and Tools", "Required Concentration Courses", "CELS Professional Development Courses" and "Dissertation" at the University of South Florida¹²; and

³ Retrieved from http://coe.unm.edu/departments/programs/bachelors-degrees.html

⁴ Retrieved from http://www.wittenberg.edu/academics/education/requirements.html

⁵ Retrieved from http://www.stvincent.edu/Majors_and_Programs/Majors_and_Programs/Education/ Education_K-12/

⁶ Retrieved from http://www.edb.utexas.edu/education/departments/undergrad/

⁷ Retrieved from http://cehd.gmu.edu/academics/master

⁸ Retrieved from http://catalog.ecu.edu/content.php?catoid=3&navoid=186

⁹ Retrieved from http://tl.ehe.osu.edu/academic-programs

¹⁰ Retrieved from http://education.oregonstate.edu/academics

¹¹ Retrieved from http://gradschool.siu.edu/academics/curriculum-instruction.html

¹² Retrieved from http://www.coedu.usf.edu/main/programs.html

mainly five or more than five types such as "Core Classes", "Specialty Area", "Research Methodology", "Research Internships" and "Dissertation Research" at the University of Alabama at Birmingham¹³.

Curricula of early childhood education specialist are mainly divided into "major", "foundation" and "elective" curricular at the Indiana University¹⁴; and "educational theory and curriculum and methods" courses in major areas such as language and literacy, mathematics, science and social studies and "research-based course" where they design and carry out projects in elementary classrooms at the University of Georgia¹⁵.

2.4 Graduation requirements

There are a lot of specific requirements for degree or teacher certification of early childhood education major at the U.S. higher schools. For example, the bachelor degree of early childhood at the Wittenberg University needs satisfactory completion of all the general courses requirements, and the major courses 51 hours plus 14 hours in related areas and additional electives to meet graduation requirement of 130 semester hours¹⁶; the master degree of early childhood education at the Florida International University requires all the students to take 15 hours of foundation courses in curriculum and instruction and in methods/statistics, the students take an additional 18 hours within early childhood education/development, and 3 hours of education-related electives¹⁷; the specialist in early childhood education at the Florida State University will be equipped with "Research", "Theory Base for Childhood Education", "Evaluation", "Curriculum", "Instruction", "Special Field Experience", "Practicums" and "Directed Research" 18; and the students awarded a Ph.D. of Education including early childhood education at the George Mason University must satisfactorily complete all the courses listed on the student's approved program of doctoral study, have at least a B average on all the coursework included in the program of study, satisfactorily complete a comprehensive portfolio assessment and an accepted dissertation and the oral defence of this dissertation (CEHD, 2012, p. 9).

¹³ Retrieved from http://www.uab.edu/education/home/future-students/degrees-programs

¹⁴ Retrieved from http://www.coe.uga.edu/academics/graduate

¹⁵ Retrieved from http://education.indiana.edu/graduate/programs/index.html

¹⁶ Retrieved from http://www5.wittenberg.edu/academics/education/requirements.html.

¹⁷ Retrieved from http://education.fiu.edu/masters_degrees.html?expanddiv=ms13.

¹⁸ Retrieved from http://www.coe.fsu.edu/Current-Students/Departments/School-of-Teacher-Education-STE/ Current-Students/Early-Childhood-Education/Specialist.

2.5 Career options

Early childhood education at the U.S. higher schools usually provides the students with some specific career options for the future. For example, opportunities for bachelor degree of "infant through early childhood education" at the Barry University include "classroom teacher (Grades K-3)", "preschool teacher (Infancy – Prekindergarten)", "advocate for an early childhood readiness coalition" and "museum educator with an art, science or children's museum"¹⁹; career opportunities of the master of early childhood education at the Monmouth College include pre-school teacher at private schools, pre-school teacher at public schools, P-3 teacher at public school, early intervention specialist, head start coordinator and parent educator²⁰; and "The Child Development/ Early Childhood Education Ph.D." at the University of Nebraska – Lincoln provides students with rigorous education, research, and teaching experiences that will prepare them as professionals qualified to work at universities, in private research firms, and public policy institutions²¹.

From above all, the early childhood education major at the U.S. higher schools has not only made a great progress in number and educational level, but also has specific and operatable training plans.

3 Features of early childhood education at the U.S. higher schools

According to the history and status, we consider that early childhood education at the U.S. higher schools has developed very quickly and focused on "the higher educational level", "various major fields", "practicable degree plans", "diverse instructional methods", "strict teacher certification" and "networking".

3.1 Higher educational level

"High-level" means that early childhood education teacher training including training institutions, students, curriculum, education levels and other aspects and non-directional preschool teacher training system in the United States, are non-direction, diverse and high-level in modes, curriculum, and teacher certification (Wang, 2008, pp. 13–14) and has paid attention to multicultural awareness and inclusive education ability of the teachers; and high-quality and social justice are its value-orientation (Yang & He, 2013;

¹⁹ Retrieved from http://www.barry.edu/education-undergraduate/about/infancy-early-childhood.html.

²⁰ Retrieved from http://www.monmouth.edu/.

²¹ Retrieved from http://cehs.unl.edu/cyaf/programs/child-developmentearly-childhood-education-phd.

Peng, 2008). Investigation shows that there are no secondary preschool normal school, and pre-service training of the early childhood teachers are mainly done at graduate schools, colleges of early childhood education, Colleges of Human Development, 2-year community colleges, 4-year colleges and universities, and there are more bachelors than associate bachelors and masters; and 71% higher schools with master degrees, 34.2% with doctor and 14.5% with education specialist degrees at 228 U.S. universities. In fact, the state pre-k programs with higher teacher qualification requirements improve children's school readiness so the states get the most out of their investment in early education, and educators with at least a bachelor's degree coupled with specialized training in early childhood are best able to foster the development of the cognitive, social and emotional skills children need to be ready for kindergarten (Bueno, Darling-Hammond & Gonzales, 2010).

3.2 Various major fields

At the U.S. higher schools, early childhood education is usually divided into different fields and attaches importance to individual differences of the early childhood teachers. For example, undergraduate education of early childhood education at the Wittenberg University involves "Early Childhood (P-3)", "Middle Childhood (4-9)", "Early childhood (P-3)" and "Intervention Specialist" of "Mild/Moderate Educational Needs (K-12)", "Early Childhood Generalist (4-5)", "Middle Childhood Generalist (4-6)"22; the master of early childhood education at the University of Massachusetts Amherst includes "Child Study and Early Education", "Early Intervention (0–3 years)", "Early Childhood Education (0-5 years)", "Family Services", "Public Policy for Children and Families", and "Interdisciplinary Work in Childhood Studies"23; and the doctorate program of early childhood and childhood education at the New York University involves in "Human and Child Development", "Social Contexts of Learning", "The Influence of Culture on Teaching and Learning", "Multiple Ways of Knowing", "Families as Partners in Children's Schooling", "The Uses of Evaluation and Assessment in Teaching and Learning", "The Impact of Language and Literacy Development on Children's Learning" and "Curriculum Development"24. At meantime, some universities in the United States pay more attention to interdisciplinary research of "Early childhood education", especially between early childhood education and special education/elementary education/child development/educational leadership/family education, etc. For example, there is a major of "Interdisciplinary Early Childhood Education (IECE)" for the bachelor, master and doctor degrees at the University of Kentucky²⁵; and "Early Childhood Education" at the Montana State University involves

²² Retrieved from http://www5.wittenberg.edu/.

²³ Retrieved from http://www.umass.edu/.

²⁴ Retrieved from http://steinhardt.nyu.edu/.

²⁵ Retrieved from http://www.uky.edu/.

"Child Development", "Developmentally Appropriate Practices", "Early Intervention with Children with Special Needs", and "Assessment and Intervention, Advocacy, and Program Administration" All the different fields do not only train wide learning and research interests of the early childhood education students but also meet the various needs of preschool education of individuals and society.

3.3 Practicable degree plans

The early childhood teacher education programmes at the U.S. higher schools usually consist of recruitment and selection, general education, professional foundations, instructional knowledge, field experiences and clinical practice, and programme evaluation (Saracho, 2013). Pre-service trainings for kindergarten teachers pay more attention to widely general knowledge, knowledge on pedagogy and psychology, children's ages and related teaching methods, the influence and guidance of preschool teachers' skills, and practical ability; and in-service trainings think much of professional, student-based, kindergarten-based and "higher-quality" (Yan, 2008, pp. 31–36). For example, the program overview of the bachelor of "Infancy Through Early Childhood Education (Birth – 3rd Grade)" at the Barry University introduces "who will I teach", "what will I learn" and "where can I teach"²⁷; master program of "early childhood education" at the Lesley University shows the meaning, features and outcomes of learning²⁸; and the doctor degree of early childhood education at the University of Houston includes "Is this Program for Me", "What will I learn" and "What can I do with my degree"²⁹. Thus, the degree plans are usually easy to be operated and practiced.

3.4 Diverse methods

Early childhood education at the U.S. higher schools thinks much of not only operativity of the degree plan but also diversity of training methods including discussion, speech and debate in classrooms; communication out of school; and online. For example, based on the six competency goals, the Child Development Associate (CDA) training program provides three different types of the training patterns about Center-Based, Family Child Care and Home Visitor and a candidate can earn his CDA credential through the CDA Professional Preparation Program or local college training and direct assessment (Ji, 2011); a multi-year action research study paid particular attention to the process whereby an early childhood teacher investigated, problematized, and challenged the

²⁶ Retrieved from http://www.montana.edu/.

²⁷ Retrieved from http://www.barry.edu/education-undergraduate/about/infancy-early-childhood.html.

²⁸ Retrieved from http://www.lesley.edu/early-childhood-education/

²⁹ Retrieved from http://www.coe.uh.edu/academic-departments/cuin/

nature of curriculum and practices in a diverse preschool classroom and can foster culturally-relevant teaching and shifting early childhood teachers' perceptions of what it means to engage in culturally-relevant teaching, respecting and honoring cultural diversities (Souto-Manning & Mitchell, 2010); pre-service early childhood educators presented with the PulpMotion created an anchored instructional video where experiences were shown to have a marked increase of on-line discussion board postings and reviews of "non-required" reading of early childhood special education (Chapman, 2014); three types of workshops (half day/full day or multi-day) or one of two types of onsite, field-based training (basic and enhanced) of in-service training could improve early intervention practitioners' abilities to use family-systems intervention practices (Dunst, Trivette & Deal, 2011); and the journals and video-recording could promote self-conscious productive reflections and clarify content knowledge and link theory to practice (Bayat, 2010).

3.5 Strict teacher certification

Strict professional standards are designed to promote the professional development and enhance the quality of early childhood teachers. On the one hand, the nation and states have thought much of improving standards of early childhood teachers. National Association for the Education of Young Children (NAEYC) Amendment in 2003 published a new standard which stressed preschool teachers in the 21st century should have "knowledge" and "skills" about how to promote the children's development and learning, establishing a harmonic relationship between family and the community, observation records and evaluation, teaching and learning, and become the experts and the new standard of NAEYC in 2004 focused on linguistic and cultural diversity, integration of children with special needs among ordinary children, subject knowledge, supervised living communities, assessing children's learning and development, teaching strategies and ways to promote children's development and learning standards and learning experience (Xie & Lu, 2008).

On the other hand, there have been strict programs for teacher certification at the U.S. higher schools. In the past ten years, the U.S. higher schools have paid much attention to the preschool teacher education reform so as to promote teachers' professional development and improve the quality of preschool education, and the initial teacher training reform laid emphasis on cultivating students' practice ability, and in-service teacher training is aimed at improving teachers' professional level (Cao, Wang, Tian & Shmizu, 2013). At present, there are some certification departments and standards for early childhood teachers at the U.S. colleges and universities. For example, "OAR584-018-0115 Early Childhood Education Authorization" from "14-15-early childhood-hand-

book in Lewis and Clark College" introduces five specific standards of preschool teacher in Oregon in the following (p. 12)³⁰.

3.6 Networking

The Internet may be a practical alternative for providing high-quality, research-based training, information, and resources to these professionals (Weigel, Weiser, Bales & Moyses, 2012). Distance education is a planned learning experience or a method of instruction characterized by quasi-permanent separation of the instructor and learner, and has been used as a method of the pre-service teacher preparation and an in-service training to fulfil a mandate to upgrade the knowledge/skills/qualifications of teaching abilities; and includes correspondence model, audio-based models, televisual models, computer-based multimedia models, web-based models and mobile models (Burns, 2011, pp. 9–10). There are rich internet resources about early childhood education major at the U.S. higher schools such as online courses, online learning, distance education, continuing education and adult education, and the learners will not only easily get their net information and resources but also apply for online degrees. For example, there are online bachelor and master degrees at the University of North Carolina at Chapel Hill³¹; and doctor and educational specialists degrees at the the University of Alabama³².

All in all, early-childhood teacher education at the U.S. colleges and universities has experienced 140 years, been one of the most developed countries with rich experiences, and formed its own characteristics.

4 Problems on early childhood education at the U.S. higher schools

Although early childhood education at the U.S. higher schools has made great progress, we consider that the main disadvantage is "confused professional boundary", which is shown in the following.

"Elementary education" includes "early childhood education", and there is no independent "Early childhood education" major at some higher schools. For example, "Elementary education" at the University of Wisconsin includes "Early Childhood/ English as a Second Language", "Middle Childhood – Early Adolescence/English as a Second Language", "Middle Childhood – Early Adolescence/Special Education" and

³⁰ Retrieved from http://graduate.lclark.edu/live/files/17429-14-15-ecel-handbook-finalpdf.

³¹ Retrieved from http://www.unc.edu/academics/.

³² Retrieved from http://bamabydistance.ua.edu/degrees/.

"Middle Childhood – Early Adolescence/Content-Focused Minor"³³; the **Elementary Teacher Preparation Program** at the Duke University prepares candidates for critical thinking and decision making that will be required of them as caring and reflective educators in **K-6 classrooms**³⁴; the master's Degree of Early Childhood Education Specialization within the Elementary Education at the Indiana University is designed for individuals who have completed a degree in early childhood education or elementary education and who have a teaching license in early childhood education (preschool), elementary/primary grades (K-3), or elementary education (K-6) ³⁵.

- 2. "Childhood education" includes "early childhood education", and there is no independent "early childhood education" major at some higher schools. The master programs childhood education at the Ripon College are of the early childhood/middle childhood level (grades PK through 5) and the middle childhood/early adolescence level (grades 1 through 8)³⁶; the School of Education at the University of North Carolina at Chapel Hill offers three undergraduate programs in teacher education such as "Middle Grades Education (Grades 6–9)", "Elementary Education (Kindergarten Grade 6)" and "Child Development and Family Studies (Birth Kindergarten)", which is grounded in the disciplines of "Child Development", "Early Childhood Education" and "early childhood special education"³⁷.
- 3. "Early childhood education" parallels with "elementary education" or "childhood education" at some higher schools. For example, the "Elementary and Kindergarten Education" major offers teaching options in "Early Childhood Education" and in "Elementary Education" at the Pennsylvania State University University Park where "Childhood and Early Adolescent Education" has met all of the requirements for "the PK-4", "English Education 4–8" or "Social Studies Education 4–8" the master of "Early Childhood/Elementary Education" at the Rutgers University is intended for certified teachers who wish to continue their study of learning and teaching in early childhood/elementary settings³⁹; and "Early Childhood and Childhood Education" at the State University of New York at Buffalo deals with children from preschool up to the middle school years; and the students may choose to emphasize early

³³ Retrieved from http://pubs.wisc.edu/ug/education_Outlines_ElemEd.htm.

³⁴ Retrieved from http://educationprogram.duke.edu/teacherpreparation/elementary.

³⁵ Retrieved from http://education.indiana.edu/graduate/programs/early-childhood/Early%20Childhood%20 Ed%20 Master%20Info.pdf

³⁶ Retrieved from http://www.ripon.edu/education/.

³⁷ Retrieved from http://soe.unc.edu/academics/cdfs/.

³⁸ Retrieved from http://bulletins.psu.edu/undergrad/campuses/details/26/.

³⁹ Retrieved from http://gse.rutgers.edu/academic-programs/edm-programs/early-childhoodelementaryeducation.

childhood (birth – grade 2), childhood teaching (grades 1–6), or both, or a specific childhood curriculum field, such as literacy or mathematics⁴⁰.

Reflecting above problems, we consider that the main reason lies in "confused professional boundary" of "Early Childhood Education" for the children with 0–8 years old as a major at higher schools. In fact, "Early Childhood Education" is not only a part of "Childhood Education"⁴¹ but also involves in "Preschool Education" (0–5 or 6 years old) and "Elementary Education" (5 or 6–12 years old), which usually causes some problems and difficulties such as aims, curricula, method, and evaluation of teaching and learning in colleges and universities.

Conclusion

In conclusion, the United States is one of the best developed countries in early child-hood teacher education and has accumulated a lot of experiences and formed some features in early childhood education major at the higher schools. As to the other countries, it is very necessary to learn from early childhood education at the U.S. higher schools.

In addition, we consider that it may be more reasonable to make "early childhood education" a parallel research field with "middle childhood education" and "advanced childhood education" or "adolescent education" than as a major paralleled with "elementary education", "secondary education" and "higher education" at the higher schools; and we consider that it is better to make "preschool education" a parallel major with "elementary education", "secondary education" and "higher education" than "early childhood education" at the higher schools. Only like that, "preschool teacher education" and "elementary teacher education" will have more specific and pertinent purposes, curricula and methods, which means the "preschool education" major at the higher schools will train teachers at nurseries and kindergartens and "elementary education" is to train teachers at elementary schools or primary schools.

⁴⁰ Retrieved from http://grad.buffalo.edu/Academics/academic_programs.html?CFC_target= FWtuWCmzf92 jBK0WxkYiOjhG3g-http%3A%2F%2Fwww.gradmit.buffalo.edu% 2Fgrad%2Facademics%2Facademicprog rams2.asp%3Fid%3D34

^{41 &}quot;Childhood Education" may be divided into "Early Childhood Education", "Middle Childhood Education" and "Advanced Childhood Education" or "Adolescent Education".

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