

# **Exploring Limitations in Quality and Career Opportunities in Preschools: A Case Study of Taiwanese Preschools**

By

Hsiu-Yueh Chiu

A thesis submitted in fulfillment of the requirements for  
the degree of Professional Doctorate in the Faculty of  
Arts, Business, Informatics and Education of  
CQUniversity

July 2014

# Declaration

The work contained in this thesis has not been previously submitted for a degree or diploma at any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Hsiu Yueh Chiu

Hsiu-Yueh Chiu

25 July 2014

# **Abstract**

This research aimed to assess Early Childhood Education and Care (ECEC) quality and career opportunities in preschools and identify strategies for improvement in these areas in Taiwanese preschools incorporating the multiple perspectives of key stakeholders. This research used a qualitative case study approach examining a variety of public and private preschools employing individual interviews and focus group sessions to build detailed data about how parents, teachers, principals, evaluators and a relevant government official view ECEC quality and career opportunities in the Taiwanese preschool.

Findings from this research indicate that the following factors are considered relevant to ECEC quality in Taiwan by research participants: teacher quality, teaching and caring, government policy, parent-teacher communication, principals' leadership, staff-child ratios, and physical environment (ranked in descending order of significance based on how frequently they were mentioned by participants). Participants defined teacher quality as dependent on a combination of passion, qualifications, professionalism and experience. Participants stressed the impact of government policy on the capacity of the Taiwanese ECEC industry to deliver high quality care and identified stability of policy, subsidization of preschools, teacher-child ratios, measures of social justice, and the requirements of remote areas as key policy points. Safety, adequate space and facilities were identified by participants as important factors in providing a high quality physical environment.

With regard to career opportunities for preschool, five key factors were identified: pay and benefits, working environment, professional learning opportunities, parent-

teacher communication, and principals' leadership (ranked in descending order of significance). All participant groups agreed on pay and benefits as the most important factors. It should be noted that both ECEC quality and staff's career opportunities were deemed by participants to be partly dependent on parent-teacher communication and principals' leadership.

The key recommendation derived from these findings concerns teacher morale and expertise. As teachers were identified by all participants as the most important factor in ECEC quality, improving teacher job satisfaction and opportunities for education and training might enhance both ECEC quality and preschool staff's career opportunities. It is thus recommended that a review of Taiwanese preschool staff's pay and benefits, working environment, and professional learning opportunities be conducted, as current conditions are well below industry standards in countries such as Australia and the USA. Further, more detailed recommendations are made in this study in regard to how government, higher education institutions, preschools, teachers, and parents might most effectively enhance ECEC quality and preschool staff's career opportunities in Taiwan.

# Table of Contents

Declaration.....	ii
Abstract.....	iii
List of Tables .....	viii
List of Figures .....	x
List of Abbreviations .....	xii
Acknowledgement .....	xiii
Chapter One: Introduction .....	1
1.1 Background .....	1
1.2 Purpose and Rationale of this Study .....	6
1.3 Theoretical Framework .....	7
1.4 Methodology .....	11
1.5 The Structure of the Thesis .....	11
1.6 Limitations of the Study .....	12
1.7 Definition of Terms .....	13
1.7.1 Early Childhood Education and Care .....	13
1.7.2 Kindergarten, Nursery and Preschool .....	14
1.8 Conclusion .....	16
Chapter Two: Literature Review .....	17
2.1 ECEC Quality .....	17
2.1.1 Perspectives on ECEC Quality .....	19
2.1.2 ECEC Quality Related to Child Development .....	20
2.2 Taiwanese Preschool Context .....	23
2.3 The Spheres of Influence in Taiwanese ECEC .....	26
2.3.1 Classroom Sphere of Influence .....	26
2.3.2 Center Sphere of Influence .....	34
2.3.3 Region Sphere of Influence .....	37
2.3.4 Country Sphere of Influence: National Government Policies .....	40
2.4 Taiwanese Government ECEC Policies and Strategies in Focus .....	43
2.4.1 Child Education and Care Act .....	44
2.4.2 Voucher Policy .....	45
2.4.3 Five-year-old Underprivileged Children Head-Start Program .....	46
2.4.4 Free Tuition for Five Year-Old Children .....	47
2.5 American and Australian government ECEC Policies and Strategies compared with Taiwan .....	48
2.5.1 Preschool in the USA .....	48
2.5.2 Preschool in Australia .....	52
2.5.3 Comparisons of Government Expenditure on Pre-primary Education between the Preschool Sectors in Taiwan, Australia, and the USA .....	55
2.5.4 Teacher Qualifications in Australia, USA and Taiwan .....	57

2.5.5 Preschool Regulatory Frameworks in Australia, USA and Taiwan.....	58
2.6 Career Opportunities in ECEC in Taiwan.....	61
2.6.1 Fertility Rate and Employment in the Preschool Profession .....	61
2.6.2 Teachers' Pay and Benefits.....	64
2.6.3 Working Environment.....	67
2.6.4 Teachers' Professional Learning.....	68
2.6.5 Teacher Retention, Attrition, and Turnover.....	71
2.7 The Relationship between ECEC Quality and Career Opportunities .....	73
2.8 Conclusion .....	75
Chapter Three: Research Methodology .....	76
3.1 Introduction to the Research Design .....	76
3.2. The Aim of the Research and Research Questions .....	77
3.3. Methodology of this Research: Qualitative Case Study .....	78
3.4 The Case Study Methodology.....	80
3.5 Data Collection Methods .....	81
3.5.1 Participant Selection .....	84
3.5.2 Focus Groups .....	89
3.5.3 Individual Interviews .....	92
3.6 Data Analysis .....	99
3.7 Schedule and Code of Focus Groups and Individual Interviews .....	100
3.8 Ethical Considerations .....	101
3.9 Validity of the Research.....	102
3.10 Conclusion .....	102
Chapter Four: Findings and Discussion .....	104
4.1 What are the Key Factors Influencing ECEC Quality? .....	105
4.1.1 Quality of Teachers .....	120
4.1.2 Teaching and Caring .....	129
4.1.3 Government Policy .....	135
4.1.4 Parent-Teacher Communication .....	145
4.1.5 Principals' Leadership.....	148
4.1.6 Staff to Child Ratios.....	150
4.1.7 Physical Environment .....	153
4.1.8 Summary of the Key Factors Affecting ECEC Quality .....	154
4.2 Key Factors Influencing Career Opportunities .....	155
4.2.1 Pay and Benefits.....	166
4.2.2 Working Environment.....	169
4.2.3 Professional Learning Opportunities .....	170
4.2.4 Parent-teacher Communication.....	175
4.2.5 Principals' Leadership.....	175
4.2.6 Summary of Career Opportunities for Preschool Staff .....	176
4.3 What is the Relationship between ECEC Quality and Career Opportunities for Preschool Staff? .....	177
4.3.1 Direct Common Factors in ECEC Quality and Career Opportunities.....	178

4.3.2 Indirect Common Factors in ECEC Quality and Career Opportunities.....	179
4.4 Conclusion .....	184
Chapter Five: Conclusions and Recommendations .....	186
5.1 Introduction .....	186
5.2 Research Findings .....	186
5.3 Recommendations .....	199
5.3.1 Recommendations for Government .....	199
5.3.2 Recommendations for Higher Education Institutions .....	202
5.3.3 Recommendations for Preschool Principals .....	203
5.3.4 Recommendations for Preschool Teachers .....	203
5.3.5 Recommendations for Parents .....	204
5.3.6 Recommendations for Evaluators .....	204
5.4 Recommendations for Future Research .....	205
5.5 Chapter Summary .....	205
Chapter Six: Reflection .....	207
References .....	211
Appendix A1: Tables in Chapters .....	232
Appendix A2: Figures in Chapters.....	246
Appendix B1 .....	255
Appendix B2 .....	257

# List of Tables

Table 2.1 Starting Well Index on Quality of Preschool Services across 45 Countries	232
Table 2.2 Summary of Kindergartens in Taiwan 2009-2010	24
Table 2.3 Summary of Nurseries for the Years 2000-2010 in Taiwan	25
Table 2.4 Evaluation System for Kindergartens, Nurseries and Preschools	39
Table 2.5 The ECEC Service on Childhood Education and Care Act	44
Table 2.6 Subsidy Criteria for Five-year-old Underprivileged Children	46
Table 2.7 Annual Subsidies for Different Household Income Groups	47
Table 2.8 Number of States in State-Funded Pre-K ECEC Centers Meeting Quality Standard Benchmarks (NIEER)	51
Table 2.9 Preschool Names and Starting Ages in Australia	53
Table 2.10 Percentage of Registered Preschool Providers, by Management type, by Jurisdiction, 2007/08	53
Table 2.11 Education Expenditure at All Levels of Schools in School Year	56
Table 2.12 Expenditure on Pre-primary Education for Children over Three Years as a Percentage of GDP	57
Table 2.13 Teacher Qualification Requirements in Classrooms in Taiwan, Australia, and the USA	233
Table 2.14 Comparisons of the Preschool Regulatory Framework in Taiwan, Australia, and USA	60
Table 2.15 Total Fertility Rate on OECD Countries (2000-2010)	234
Table 2.16 Employment by Occupation in 2008 and Projected for 2018	63
Table 2.17 Comparisons on the Salary of ECEC Workers and Preschool Teachers in Three Countries	65
Table 2.18 Teacher's Salaries in Primary Schools, Preschools and ECEC Centers	66
Table 2.19 Roles and Responsibilities of State and Local Education Institutions	70
Table 3.1 Research Samples and Activities	84
Table 3.2 Background Information regarding the Participants	85
Table 3.3 Gender of the Participants	88
Table 3.4 Ages of the Participants	88
Table 3.5 Education Backgrounds of the Participants	89
Table 3.6 Salary of the Participants	89
Table 3.7 Questions for Teachers (Focus Groups)	91
Table 3.8 Questions for Parents (Focus Groups)	92
Table 3.9 Questions for Principals (Individual Interviews)	93
Table 3.10 Questions for Evaluators (Individual Interviews)	95
Table 3.11 Questions for the Government Official (Individual Interview)	97
Table 3.12 Schedule of Focus Groups and Individual Interviews	100
Table 3.13 Codes for the Participants in the Focus Groups and Individual Interviews	101
Table 4.1 Perceptions of Key Factors Influencing ECEC Quality	235
Table 4.2 Number of Participant Groups mentioning Key Factors in ECEC Quality	238
Table 4.3 Queensland Government low SES Subsidy Scheme	238



Table 4.4 Suggestions for Improving ECEC Quality .....	239
Table 4.5 Perceptions of Key Factors Influencing Career Opportunities by Participant Categories according to Frequency in the Interviews.....	241
Table 4.6 Number of Participant Groups Mentioning Key Factors in Career Opportunities.....	243
Table 4.7 Suggestions for Improving Career Opportunities for ECEC Staff... ..	244

# List of Figures

Figure 1.1 Spheres of Influence on ECEC programs.....	9
Figure 1.2 Conceptual framework of this research.....	10
Figure 2.1 The quality of preschool influencing attainments in English and Mathematics at Year 6 .....	21
Figure 2.2 Returns to one more dollar of investment as at different ages.....	22
Figure 2.3 Relations between ECEC quality and children's developmental outcomes.....	23
Figure 2.4 Number of students in kindergartens 2009-2010 in Taiwan.....	24
Figure 2.5 A spider web chart of policy inputs.....	41
Figure 2.6 A spider web chart of policy outcomes across sectors in Finland.....	42
Figure 2.7 Public spending on early education and child care per child at age three (2003 and 2007).....	246
Figure 2.8 Public spending on early education and child care per child at age five (2003 and 2007).....	246
Figure 2.9 Support for paying extra taxes for child care (USA).....	43
Figure 2.10 Three phases of teacher turnover.....	73
Figure 2.11 The relationship between ECEC quality and career opportunities in preschools.....	74
Figure 4.1 The top three ECEC quality factors.....	109
Figure 4.2 High-priority ECEC quality factors as perceived by the PN groups.....	109
Figure 4.3 Venn diagram indicating the key factors influencing ECEC quality as perceived by the PN participant groups.....	111
Figure 4.4 High-priority ECEC quality factors as perceived by the participant groups in the PPN.....	247
Figure 4.5 Venn diagram indicating the key factors influencing ECEC quality as perceived by the PPN participant groups.....	113
Figure 4.6 High-priority ECEC quality factors as perceived by the PK participant groups.....	247
Figure 4.7 Venn diagram indicating the key factors influencing ECEC quality as perceived by the PK participant groups.....	114
Figure 4.8 Priority given to ECEC quality factors by the principals in three preschools .....	248
Figure 4.9 Venn diagram indicating the key factors influencing ECEC quality as perceived by the principals in the three types of preschool.....	115
Figure 4.10 Priority given to ECEC quality factors by the teacher groups in the three preschools.....	248
Figure 4.11 Venn diagram indicating the key factors influencing ECEC quality as perceived by the teacher groups in the three types of preschool.....	116
Figure 4.12 High-priority ECEC quality factors as perceived by the parent groups in the three preschools .....	249
Figure 4.13 Venn diagram indicating the key factors influencing ECEC quality as perceived by the parent groups in three types of preschool.....	118
Figure 4.14 Priorities of ECEC quality factors as perceived by evaluators.....	249

Figure 4.15 Venn diagram indicating the key factors influencing ECEC quality as perceived by evaluators .....	119
Figure 4.16 High-priority ECEC quality factors as perceived by the GO .....	250
Figure 4.17 Venn diagram indicating the key factors influencing ECEC quality as perceived by preschool-based groups and sector-wide groups .....	120
Figure 4.18 High-priority career opportunities factors as perceived by the PN participant groups .....	250
Figure 4.19 Venn diagram indicating the key factors influencing career opportunities from the perspectives of PN participant groups .....	158
Figure 4.20 High-priority career opportunities factors as perceived by PPN participant groups .....	251
Figure 4.21 Venn diagram indicating the key factors influencing career opportunities as perceived by the PPN participant groups .....	159
Figure 4.22 High-priority career opportunities factors as perceived by the PK participant groups .....	251
Figure 4.23 Venn diagram indicating the key factors influencing career opportunities as perceived by the PK participant groups .....	160
Figure 4.24 Priority given to career opportunities factors by the principals in three preschools .....	252
Figure 4.25 Venn diagram indicating the key factors influencing career opportunities as perceived by the principals .....	161
Figure 4.26 Priority given to career opportunities factors by the teacher groups in three preschools .....	252
Figure 4.27 Venn diagram indicating the key factors influencing career opportunities as perceived by the teacher groups .....	162
Figure 4.28 Priority given to career opportunities factors by the parent groups in three preschools .....	253
Figure 4.29 Venn diagram indicating the key factors influencing career opportunities as perceived by the parent groups .....	163
Figure 4.30 High-priority career opportunities factors as perceived by evaluators .....	253
Figure 4.31 Venn diagram indicating the key factors influencing career opportunities as perceived by evaluators .....	164
Figure 4.32 High-priority career opportunities factors as perceived by the GO .....	254
Figure 4.33 Venn diagram indicating the key factors influencing career opportunities as perceived by preschool-based groups and sector-wide groups .....	165
Figure 4.34 The relationship between ECEC quality and career opportunities .....	178

# List of Abbreviations

<b>Abbreviation</b>	<b>Meaning</b>
CCB	Child Care Benefit
CCR	Child Care Rebate
CDA	Child Development Associate (credential)
CECA	Child Education and Care Act
COAG	Council of Australian Governments
ECEC	Early Childhood Education and Care
ECERS	Early Childhood Environment Rating Scale
ECERS-R	Early Childhood Environment Rating Scale-Revised
GAO	United States Government Accountability Office
GO	Government Official
ISCED	International Standard Classification of Education
LSA	Labor Standards Act
MOE	Ministry of Education
MOI	Ministry of the Interior
NACCRRA	National Association of Child Care Resource & Referral Agencies
NAEYC	National Association for the Education of Young Children
NAFCC	National Association for Family Child Care
NCCIC	National Child Care Information and Technical Assistance Center
NECPA	National Early Childhood Program Accreditation
NICHD	National Institute of Child Health and Human Development
NIEER	National Institute for Early Education Research
NQF	National Quality Framework
NQS	National Quality Standard
OECD	Organization for Economic Co-operation and Development
PISA	Program for International Student Assessment
PN	Public Nursery
PK	Private Kindergarten
PPN	Privatized Public Nursery
Pre-K	Pre-Kindergarten
QRIS	Quality Rating and Improvement System
SES	Social Economic Status
TALIS	Teaching and Learning International Survey
USA	United States of America

# Acknowledgement

I wish to thank my research supervisor Associate Professor Alison Owens for her guidance, inspiration, expertise and patience. The research would not have been able to be completed without her dedication and selfless contributions.

I would like to thank Dr. Clive Graham who provided great assistance in the course of the research particularly assisting in the early foundation of the research. I am grateful for Mr. Matthew Moppett for providing me with great assistance and support in writing.

Finally I would like to thank my friends and family for support throughout this research. I would like to give special thanks to my mother and my husband for their patience, encouragement and support for this research.

# **Chapter One**

## **Introduction**

The challenge of providing high quality Early Childhood Education and Care (ECEC) at reasonable cost to families in a social context of increasing demand linked to rising female employment confronts governments in many developed and developing economies including Taiwan, Australia and the USA (Glynn, 2012; The Australian, 2012). In Taiwan, the challenges are exacerbated by local demographic and geographic factors as well as government policy. The Taiwanese ECEC industry is facing difficulties in recruitment in the context of low fertility. As there is little research available in the literature on ECEC which is focused on the Taiwanese context, this study sought to provide a contemporary account of the industry with a focus on ECEC quality and career opportunity from the perspective of a range of stakeholders with direct engagement in ECEC.

This chapter establishes the background of the study, identifies the research problem and outlines the research questions. The purpose and rationale of this research as well as the research methodology are briefly described and an overview of the structure of the thesis is presented. Finally, terms and definitions are discussed.

### **1.1 Background**

In Taiwan, due to the growing number of working parents, most children aged two to five enroll in center-based preschools, and enrolment of five year-old children reached 94.5 percent in 2011 (Ministry of Education [MOE], 2012). It is important to provide quality ECEC, since it exerts a significant influence on the academic and social

development of children (Burchinal & Cryer, 2003; Burchinal, Vandergrift, Pianta, & Mashburn, 2010; National Institute of Child Health and Human Development [NICHD], 2006). It is in the interest of all stakeholders to maintain the quality of ECEC in preschool.

In recent years, several problems in ECEC have been identified in research, particularly the quality related issues of ensuring appropriate staff-child ratios and educational qualifications of staff whilst providing affordable care for increasing numbers of families (Duan, 2011; Hsieh, 2008; Hung, 2012; Lin, 2002; Wang, 2011; Wang & Shen, 2011; Yang, Tsai, & Yang, 2002). The considerably declining fertility rate has caused falling enrolments in Taiwanese preschools even though the percentage of children attending per family has increased. Commentators argue that the limited funding for preschool and the large number of unregistered private preschools in Taiwan is downgrading the quality of ECEC (Hsieh, 2008; Lin, 2002; Yang et al, 2002; Wang, 2011). Recent government reforms such as the childcare voucher policy and free tuition for five year-old children have made little difference to parents because they cover very little of the cost of private schooling. The Child Education and Care Act (CECA) implemented in Taiwan on January 1, 2012, ensured that center-based ECEC of kindergartens and nurseries are integrated and placed preschool care for children aged two to six under the authority of a single ministry, namely the Ministry of Education (Ministry Of Justice, 2011). Preschool providers and preschool teachers have responded to the initiative of CECA with some anxiety (Wang, 2002). Preschool providers are concerned that the requirements to register as a preschool are difficult to fulfill. Moreover, unqualified teachers and the prevalence of unregistered preschools continue to affect the quality of ECEC in preschools. Heavy

workload, poor working conditions, and low salaries contribute to a high turnover rate of preschool teachers (Chen, 2009; Cheng, 2008; Bacolod, 2007; Hung, 2012). This results in many unqualified teachers coming into the preschool system and has implications for the quality of care available to Taiwanese children (Chen & Gau, 2011; Hsieh, 2008; Lin, 2002; Yang et al, 2002). High teacher turnover negatively affects the quality and cost of care available and as teachers' decisions to leave preschools and also the profession are associated with poor working conditions and career opportunity (Cheng, 2008; Feng, 2010), these factors are explored in this study of ECEC quality on Taiwan.

It is important for ECEC staff to develop wide-ranging knowledge and expertise and to be able to put theoretical knowledge into practice (Whitebook, Gomby, Bellm, Sakai, & Kipnis, 2009). Problematically, the Taiwanese higher education institutions that educate ECEC teachers incorporate only limited field practice in their formal learning programs. Therefore, ECEC teachers may start their careers underprepared for the real world conditions of preschools. Preschool teachers have little or no access to further in-service training even though Taiwanese ECEC teachers have been found to lack confidence in their ability to manage such critical physical ailments as asthma attacks (Hung, Huang, Lin, & Gau, 2008) and have insufficient skills in taking care of young children with disabilities (Shen & Wang, 2013; Sung, 2007). Therefore, teacher education options before and during employment are limiting the capacity of staff to deliver quality care that meets the needs of diverse children with confidence.

Most Taiwanese preschools focus on teaching academic skills and knowledge such as arithmetic and language but have been found to neglect children's physical,



emotional, and social development (Hsieh, 2008; Lin, 2002; Lin & Yawkey, 2013; Tsai, 2002). Parents expect children to be cared for in a safe environment. However, Chang (2002) found unacceptable accident rates and safety measures in family centers and nurseries due to a poorly maintained, organized, and planned environment. It is critically important for preschool teachers to know how to care for child safely and avoid accidents (Chang, 1989; Hsieh, 2008; Sung, 2007). Key competencies in childcare health and safety include the ability to guide children in using toys safely, to avoid accidents, and to deliver effective first aid. Since these competencies are not yet adequately demonstrable across the ECEC workforce of Taiwan, improved training of preschool teachers is necessary.

Unequal access to ECEC as a result of income inequality is another concern in Taiwan. There are more private preschools than public preschools, but because public preschools receive more funding from the government, their tuition fees are lower than those of private preschools (Hsieh, 2008; Lin, 2002; Tsai, 2002). This causes inequity in terms of access to high quality ECEC (Hsieh, 2008; Lin, 2002; Tsai, 2002). Public preschools are limited in number and only accept children aged from two to five years old, forcing many parents to send children to private preschools (Cheng, 2008; Lin, 2002). Moreover, teachers in public preschools have much higher pay and benefits than those in private preschools. A further concern regarding private preschools is the existence of many unregistered preschools in addition to legitimate private preschools. The government has not implemented adequate measures to control these unregistered preschools (Hsieh, 2008; Lin, 2002; Yang et al, 2002).

The children from low Social Economic Status (SES) families have fewer resources and are more likely to have poorer life outcomes than those of families with higher SES (Chen & Gau, 2008; Reid, 2011). Based on the principles of social justice, the Ministry of Education provides five-year-olds with the Underprivileged Children Head-Start Program from 2004, if their family's annual income is below NT\$600,000 (MOE, 2010). However, some poor families cannot qualify for the subsidy criteria of low or medium SES standard, while some self-employers with high incomes are able to qualify for the subsidy criteria through tax evasion (Huang, 2008). Despite the efforts made by the Taiwanese government to remedy these issues with regards to policy, including funding and subsidies to improve ECEC quality, the problems persist (Lo, 2012). This research seeks to address these critical issues by exploring the staff's career opportunities and quality of ECEC in preschools through an examination of the views held by stakeholders.

A great deal of research has been focused on the quality of ECEC for improving child development, and the issue of staff's career opportunities. Most research findings relating to the quality of ECEC or staff's career opportunities focus on ECEC or career opportunity issues either from a theoretical point of view or from the perspective of a specific stakeholder group (Barnett & Ackerman, 2006; Duan, 2011; Lin, 2011; Rentzou & Sakellariou, 2013). Studies have investigated ECEC reform (Duan, 2011; Stoney, Mitchell, & Warner, 2006), costs and benefits of preschool programs (Barnett & Ackerman, 2006), parents' perspectives on quality (Liang, 2001; Rentzou & Sakellariou, 2013), parents' perspectives on choosing preschools (Hsieh, 2008; Kuo & Lin, 2008), teachers' perspectives on quality (Shen, 2005), teachers' perspectives on children's readiness (Lin, Lawrence, & Gorrell, 2003), evaluation

systems (Lin, 2011; Lin & Ching, 2012), evaluation indicators (Harms, Clifford, & Cryer, 1998; Stufflebeam, 1966), teacher turnover (Cheng, 2008; Feng, 2010; Jang, 2007), teacher burnout (Cheng, 2008; Claudia, 2005; Kyriacou, 1987), professional competence (Bellm, 2008; Chen, 2008; Lin, 2004; Wang, 2005), teacher stress (Hung, 2012; Lin, 2011; Montgomery & Rupp, 2005), and teacher satisfaction (Cheng & Chen, 2011; Lin, 2011). Few studies, however, have taken into account the perspectives of multiple stakeholders or different categories of preschools regarding the issues of quality and career opportunity in Taiwan. Exceptions to this generalization include the research of Katz (1993), who proposes four perspectives on the quality of ECEC, and of Chi (2007), who interviewed principals, students and parents in the Taiwanese sector on the topic of educational quality. The relationship between staff's career opportunities and quality in preschools has been largely ignored.

## **1.2 Purpose and Rationale of this Study**

This research aimed to assess ECEC quality and career opportunities and identify strategies for improvement in the areas discussed above in the Taiwanese preschool profession by investigating the multiple perspectives of stakeholders. Criteria used by stakeholders to assess quality in ECEC provision were reviewed to identify the key factors impacting on the Taiwanese ECEC industry and career opportunities for preschool teachers in Taiwan. In order to identify the key impact factors and explore adequate strategies to enhance ECEC quality and career opportunities, five research questions were developed to guide the study:

- (1) What are the key factors influencing ECEC quality in Taiwanese preschools?
- (2) How might ECEC quality in preschools be improved?

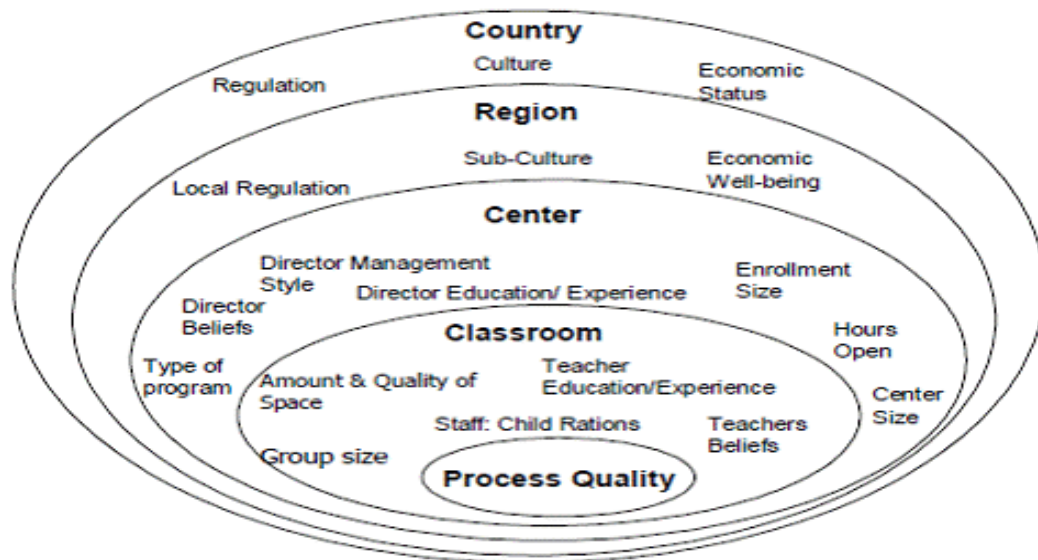
- (3) What are the key factors influencing career opportunities in Taiwanese preschools?
- (4) How might career opportunities be improved for ECEC staff?
- (5) What is the relationship between ECEC quality and staff's career opportunities?

Considering that variations may exist among stakeholders in regard to their views on preschool quality and teachers' career opportunity, this study explored quality in different categories of preschools from multiple perspectives of a range of stakeholders to understand the real needs of the stakeholders in relation to career opportunity and quality and to identify strategies for improvement.

This study is significant for future policy, practice and research in ECEC, potentially benefiting several groups. Firstly, teachers may find the results useful, as the research explores a range of critical dimensions across the sector with relevance to education, remuneration and career paths. They may gain a better understanding of quality ECEC services and career path options to help them to provide better service and establish a successful career. Secondly, the results may provide insight into quality issues that should benefit preschool principals who strive to deliver effective leadership, management and services. Thirdly, the results may inform parents with regard to the need for parental collaboration with preschools to ensure good quality ECEC for their children. Fourthly, the results provide suggestions for evaluators to improve their evaluations and perceptions about their evaluation process. Finally, the study is significant for the formulation of future government policy. The results may aid the Taiwanese Government by providing feedback and evaluation of current child care services and education policy.

### **1.3 Theoretical Framework**

Cryer, Tietze, Burchinal, Leal, and Palacios (1999) propose a conceptual model of factors in ECEC quality known as Spheres of Influence on ECEC programs, represented in Figure 1.1. According to this model, the process quality of ECEC is embedded within various spheres of influence: the sphere of classroom, center, region and country. Each sphere includes multiple factors. The closer to the center the sphere is, the greater its impact on process quality. The classroom sphere has the most impact on process quality. For example, a lower child-teacher ratio can provide a substantially better classroom service quality. The “country” of service is in the outer sphere and incorporates the effects of factors such as cultural and economic conditions on the quality of ECEC service. The influences of the region and country on process quality involve regulations. For example, the Taiwanese central government sets the child-to-adult ratio requirements and local government oversees a voucher policy for low-income families. This research project adopted the Spheres of Influence model to explore the influences on the quality of ECEC in preschools in Taiwan, since this model clearly classifies the quality factors in each level, clarifying the relationships between various influences on the quality of preschool services. This model proved useful in identifying the scope of the study in relation to the categories of preschools included, selection of stakeholders from a range of spheres, and identification of other national models (the USA and Australia) to provide comparative case data for evaluating ECEC quality and career opportunities. Interview question design and data analysis also attended to this model and the possible relevance of each sphere to ECEC quality and career opportunity in the sector in Taiwan.



*Figure 1.1.* Spheres of Influence on ECEC programs.

Source: Cryer et al., 1999.

This research explored ECEC quality and career opportunities in the preschool profession in Taiwan by probing the criteria identified by theorists (Cryer et al., 1999) and/or used by stakeholders to judge ECEC quality and career opportunities. The conceptual framework of this research is illustrated in Figure 1.2. The framework situates both ECEC quality and career opportunities in ECEC within the national, regional, and, most importantly, individual preschool contexts. ECEC quality includes process quality and structural quality. Process quality refers to actual experiences, including children's interactions with caregivers and peers and their participation in different activities (Marshall, 2004). Structural quality refers to the ratios of children to staff, group class size, caregivers' formal education, and caregivers' training related to children (Marshall, 2004). Both structural quality and process quality involve the relationships among parents, staff, children, owners, managers, and regulators of preschools.

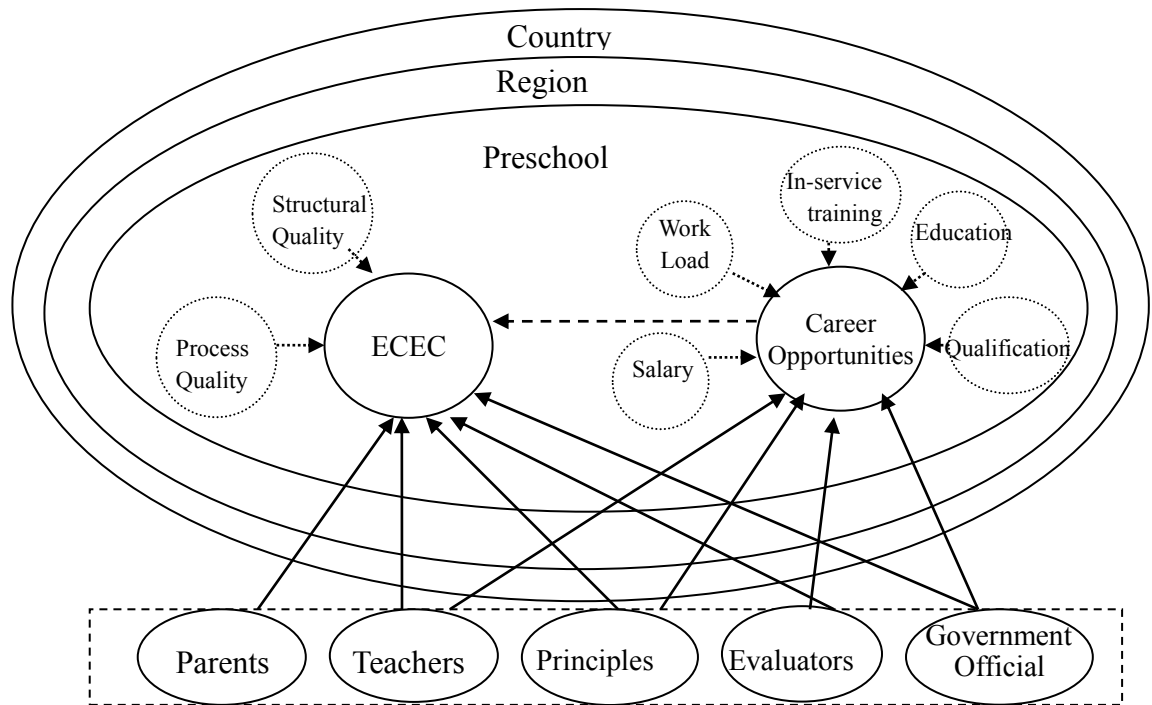


Figure 1.2. Conceptual framework of this research.

In this framework, the factors affecting the career opportunities of preschool staff include salary, workload, in-service training, education, and qualifications. These criteria are explored in this research across the stakeholder groups in order to describe how such factors impact on staff and preschools, what further factors are perceived as relevant to career opportunity and what recommendations for improved careers exist for preschool staff.

Local and national governments can profoundly affect the ECEC industry in terms of quality through policy decisions, evaluation processes and funding models. A further relevant “Sphere of Influence” can be identified from international practices in the regulation and provision of ECEC services. Therefore, Australia and the USA provide models of ECEC regulation considered in this review of ECEC quality in Taiwan. A comparative account of these national models is provided in Chapter Two of this

thesis. This research adopted a qualitative approach in exploring the views of parents, teachers, principals, evaluators and a government official (GO) in relation to ECEC quality and career opportunities by means of focus groups and individual interviews. The research also involved a document analysis of Taiwanese, Australian and US government policy pertaining to ECEC in order to better differentiate, describe and evaluate the Taiwanese model and possible reforms.

## **1.4 Methodology**

As a qualitative project, this research sought multiple perspectives to build a rich understanding of the experience of ECEC quality and career opportunity in the sector in public and private preschools in Taiwan. A qualitative case study methodology was considered a suitable framework to focus the study on Taiwan, engage with real-life data and incorporate multiple sources of data. The study investigates the participants individually and also in focus groups and investigates how the participants perceive ECEC quality and career opportunities. Five categories of participants are involved: principals, teachers, and parents (preschool groups), and evaluators and the GO (representing sector-wide interest groups). Informed consent was obtained from each participant in line with ethical guidelines. Audiotape recordings were used in the interviews with participants. Interview data were transcribed fully in Chinese, and then translated into English. Creswell's (2008) data analysis methods are explained and adopted in organizing, interpreting and reporting the data in Chapter Four of this thesis.

## **1.5 The Structure of the Thesis**

This chapter provides an overview of the research background and problems and



explains the rationale. It describes the importance of quality, the problems that exist in preschool provision and the Taiwanese Government's effort to improve the quality of preschools. In addition, the aim of the research, the research questions and the significance of the research are outlined. Chapter Two provides a literature review of quality ECEC and career opportunities in the preschool profession relevant to the problems of the research. It outlines key terms and concepts for understanding the ECEC industry and ECEC quality, and the key issues for career paths and career opportunity in the ECEC industry in Taiwan. In addition, it compares ECEC quality in the preschool profession in Taiwan with the USA and Australia. It also defines a theoretical framework for the research.

Chapter Three presents the methodology of this research, which employs a qualitative case study approach, including the research design and the process of collecting and analyzing data. Ethical considerations and the issues of reliability and validity are also discussed.

Chapter Four presents the findings from analysis of the data generated from focus groups and individual interviews. Summaries of the three parent focus groups, the three teacher focus groups, and of the individual interviews are presented.

Chapter Five summarizes the findings and explains their relevance to the research question, draws conclusions, and makes several recommendations. Finally, further questions raised by the research are suggested as topics for future research.

## **1.6 Limitations of the Study**

This study is limited in several ways. Firstly, the research involves a case study of

three preschools in a city located in the southern part of Taiwan. The small size of the sample is characteristic of an in-depth, qualitative approach to research but means that the findings cannot be generalized to apply to all of Taiwan. However, the research outcomes provide empirical data and experiential insights contributing to an enhanced understanding of the ECEC industry in Taiwan. It would have been beneficial to study preschools in every region of Taiwan, but this was impossible because of time constraints. Secondly, observation of the behavior of children in preschools in order to obtain data on the process and structural quality of ECEC has not been considered as part of this investigation due to the ethical complexities of researching young children. Thirdly, alternative teaching methodologies such as bilingual education and Montessori preschools are outside of the scope of this study. Fourthly, the study uses focus groups and individual interviews to obtain data emphasizing the personal experience and personal views of the interviewees. Further, due to time constraints, only one local government official was interviewed to explore the policy implications of the quality of preschool provision; no national government officials were consulted.

## **1.7 Definition of Terms**

The definitions of key terms in relation to this research are discussed under the following headings: Early Childhood Education and Care, and kindergarten, nursery and preschool.

### **1.7.1 Early Childhood Education and Care (ECEC)**

Dahlberg, Moss and Pence (2007, p. 18) define early childhood as “the period before compulsory schooling, which in most countries is the first six years of life”. The term

ECEC is typically a scheme providing education and care for children before the age of formal schooling, which is before the age of six in Taiwan. This study has selected Taiwanese children enrolled in preschools between the age of two years and six years old as the most relevant child population in examining the Taiwanese ECEC industry. ECEC involves looking after, safeguarding, and educating young children and fostering their development. There are two types of ECEC: center-based care and home-based care (family day-care). Center-based ECEC provides educational and care services. In Australia it is known as “long day care” and in the USA as “day care”.

The terminology regarding ECEC in different nations is inconsistent. Some countries term it nursery care; it is also known as day care, kindergarten care or Pre-Kindergarten (Pre-K). In addition, the period of care overlaps several stages of child development. ECEC like any business where it is for profit and not provided by government, needs to operate sustainably, within budget constraints. In this thesis, the notion of ECEC includes services provided, management of operations and facilities, and compliance with government regulations. The emphasis in the research conducted within this thesis is on the quality of care and education provided to preschool children between two and six years old and on career opportunities for staff in the Taiwanese preschools.

### **1.7.2 Kindergarten, Nursery and Preschool**

The terms kindergarten, nursery and preschool can be used interchangeably in some countries, but they can also have more specific meanings. In Taiwan, a kindergarten provides education for children aged four to six years under the MOE. A nursery

provides childcare and education services to children aged one month to six years old under the authority of Ministry of the Interior (MOI). The CECA was implemented on January 1, 2012, acting to integrate kindergartens with nurseries under the authority of the MOE (Ministry of Justice, 2011). It merged the kindergarten and nursery systems accepting children of any age between two and six years old and renamed as “preschools” (Ministry of Justice, 2011). Preschool’s childcare and education services are not compulsory in Taiwan. There are three categories of preschools operating in Taiwan: public, private and privatized public. Public preschools are owned by the government; private preschools are owned by private owners; and privatized public preschools are public preschool facilities managed by private owners. In Taiwan, staff (teachers, and assistant teachers, care workers) in kindergartens, nurseries and preschools, are usually all called to teachers by staff, children or parents. This research uses the term teacher to refer to staff in Taiwanese kindergartens, nurseries and preschools.

In the United States, kindergarten is usually the first year of primary school. The term “preschool”, as defined by the US NCCIC (2011), refers to “programs designed for children who are ages three–five years with early education experiences to prepare them for school”, although the terms “kindergarten” and “nursery” are also used. The old term “nursery school”, for institutions accepting children aged four or five to prepare them for kindergarten has been replaced by “preschool” or “Pre-K” in the USA. Preschool / Pre-K is compulsory in some states. In Australia, kindergarten provides education for children aged four, but in some states, kindergarten refers to the first year of primary school. In addition, preschool for children aged three to five can be called “kindergarten” in some states (Marshall, 2004).

## **1.8 Conclusion**

This Chapter has explained the research topic and provided background information to establish the significance of ECEC industry quality and career opportunities in contemporary Taiwan. The research aims and research questions were presented and a theoretical framework was proposed to structure the scope of the study. Research method and associated limitations were introduced. An outline of the structure of this thesis was provided and key terms relevant to this study were defined.

## **Chapter Two**

### **Literature Review**

This chapter reviews the background literature regarding the research problem of ECEC quality and career opportunity in the Taiwanese preschools. This chapter discusses the relevant literature concerning ECEC quality, career paths, career opportunity, limitations on ECEC quality, and limitations on career opportunity. In discussing these aspects of ECEC, it is useful to compare ECEC quality in the Taiwanese preschool with other countries to establish good practice measures that may inform the Taiwanese industry. This chapter therefore systematically compares Taiwan to the USA and Australia when discussing the issues listed above.

#### **2.1 ECEC Quality**

ECEC quality is defined as “quality implies that children are being well cared for and educated” (Penn, 2011, p. 5) or “an attribute of services for young children that ensures the efficient production of predefined, normative outcomes, typically developmental or simple learning goals” (Moss & Dahlberg, 2008, p3). Quality could be a measurement of the extent to services: “quality being a measurement (often expressed as a number) of the extent to which services or practices conform to these norms” (Dahlberg, Moss & Pence, 2007, p. viii).

Most studies use the “process” of care and the “structure” of the program to judge its quality (Bigras et al., 2010; Ceglowski & Bacigalupa, 2002; Chen & Gau, 2011; Espinosa, 2002). Espinosa (2002, p. 3) proposed a list of essential indicators of quality

in preschool under the headings of aspects of process and aspects of structure:

*Aspects of Process*

- There are positive relationships between teachers and children.
- The room is well-equipped, with sufficient materials and toys.
- Communication occurs throughout the day, with mutual listening, talking/responding, and encouragement to use reasoning and problem-solving.
- Opportunities for art, music/movement, science, math, block play, sand, water, and dramatic play are provided daily.
- There are materials and activities to promote understanding and acceptance of diversity.
- Parents are encouraged to be involved in all aspects of the program.

*Aspects of Structure*

- Adult-child ratios do not exceed NAEYC recommendations.
- Group sizes are small.
- Teachers and staff are qualified and compensated accordingly.
- All staff are supervised and evaluated, and have opportunities for professional growth.

Quality service creates consumer satisfaction: in other words, “customers feel that their expectations and needs have been met” (Steyn & Schulze, 2003, p. 671). This research refers to children and families as the consumers for ECEC service (Fenech, Harrison & Sumsion, 2011). Service quality is closely related to management quality, marketing, personnel management, communications with customers, service specifications and delivery (Papadomichelaki & Mentzas, 2009; Parasuraman, Zeithaml, & Malhotra, 2005).

Karvelas (2012) uses the Starting Well Index to assess the inclusiveness and quality of preschools across 45 countries. The Starting Well Index classifies 21 indicators of ECEC quality into four categories – social context, availability, affordability and quality – as shown in Table 2.1 (Appendix A1). Finland is the top ranking nation according to Karvelas’ application of this index, with an overall rating of 91.8, Taiwan ranks 30th, with a rating of 58.4, Australia ranks 28th, with a rating of 59.1, and the

US ranks 63rd, with a rating of 24 (Karvelas, 2012). Although Australia, the USA and Taiwan are developed countries, they all rank in the lower half of the Index. This means that Australia, the USA and Taiwan all have significant potential to improve their preschool quality. Finland scores high marks on the index because of high staff to child ratios (11), highly qualified teachers, and good teacher working conditions and wages (Karvelas, 2012).

These indicators of ECEC quality provide important background to research in the Taiwanese ECEC sector. In addition, many research studies have been conducted on ECEC quality from different perspectives (Katz, 1993) and the relationship with child development (Barnett, 1995; Espinosa, 2002; Sammons et al., 2008),

### **2.1.1 Perspectives on ECEC Quality**

Different types of persons may have different perspectives on judgments of value regarding ECEC Quality:

...all those engaged with early childhood and early childhood institutions recognize that there are different perspectives, that the work we do (whether as practitioners or parents or policy makers or researchers) always takes a particular perspective – and that therefore choices—or judgments of value—are always being made from which flow enormous implications in terms of theory and practice (Dahlberg, Moss, & Pence, 2007, p. 119).

Katz (1993) proposes four perspectives relevant to understanding the quality of ECEC: a researcher/professional perspective (top-down); staff perspectives (inside-outside); children's perspectives (bottom-up perspective), and parents' perspectives (outside-inside). The researcher/professional perspective spans concerns with both the structure and process aspects of ECEC quality (Ceglowski & Bacigalupa, 2002; Chen & Gau,



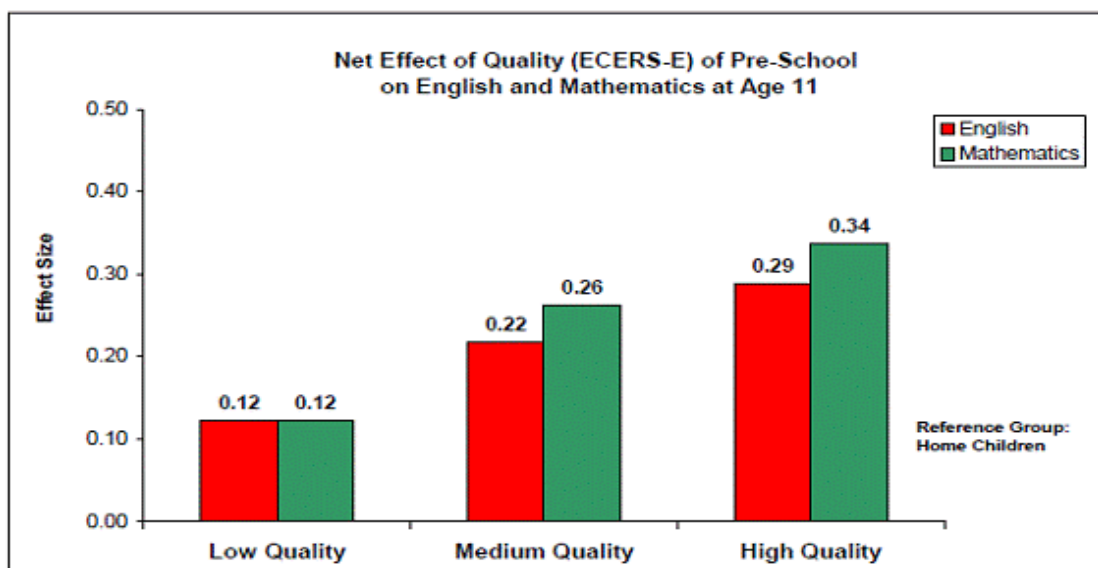
2011). Structural quality includes staff qualifications and experience, formal education, caregivers' training, staff-child ratios and group size (Marshall, 2004). Process quality concerns children's experiences in preschools, such as interactions with teachers and the activities and materials available (Cryer et al., 1999; Phillipsen, Burchinal, Howes, & Cryer, 1997).

Staff perspectives also span concerns with process and structure particularly staff-parent relationships, preschool relationships, and colleague relationships, working environment, workload, job satisfaction, professional learning, and staff wages (Katz, 1993). Parents' perspectives mainly concern parent-teacher relationships and decision-making processes in selecting quality preschools for their children (Katz, 1993). Child perceptions of quality are based on the child's experience of the preschool program (Katz, 1993). As explained earlier, child perspectives (bottom-up) were not included in this study but consideration was given to professional, staff and parent experiences and perspectives of the processes and structures of ECEC in Taiwan in order to establish a multidimensional understanding of the issues involved.

### **2.1.2 ECEC Quality Related to Child Development**

Several research studies show that the quality of ECEC programs exerts significant long-term effects on the cognitive, academic, and social development of children (Barnett, 1995; Espinosa, 2002; Sammons et al., 2008). A research study on year-six students indicates that higher quality preschools and beginning preschool earlier can make a positive impact on cognitive outcomes of later stages (Sammons et al., 2008). The study reports that Year-six students who had attended a higher quality preschool had average attainments in English of 0.29 and mathematics of 0.34, much higher

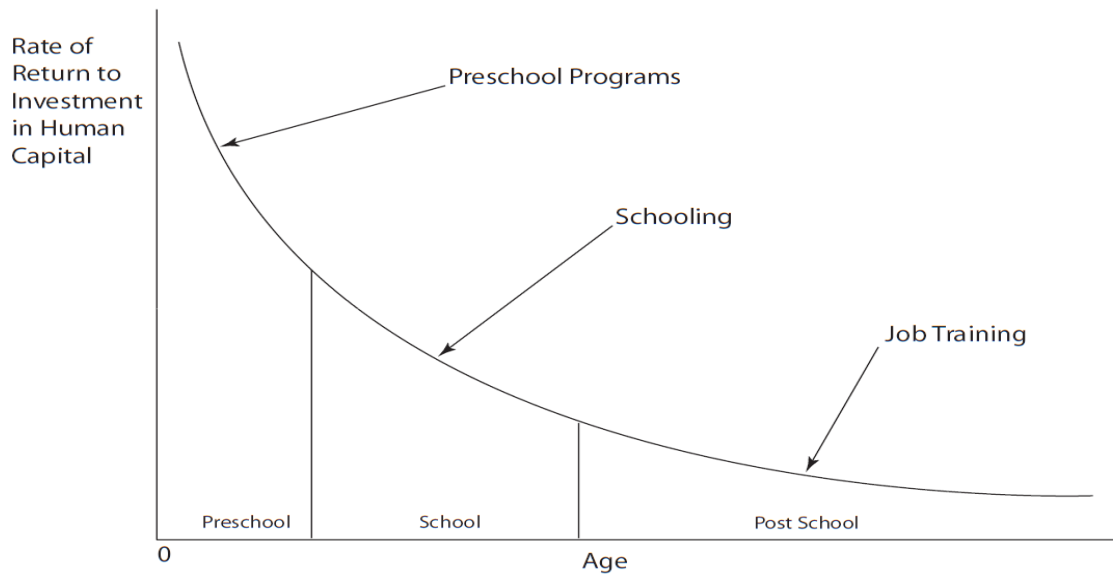
than the attainments of students attending the lower quality preschool, who attained English scores of 0.12 and mathematics scores of 0.12, or the students who attended the mid-quality preschool, who had positive attainments of 0.22 in English and 0.26 in mathematics 0.26 (see Figure 2.1). This suggests that children's experience in high quality preschools can make a difference to cognitive attainments in the long term and thereby impact profoundly on their lives.



*Figure 2.1.* The quality of preschool influencing attainments in English and Mathematics at year six.

Source: Sammons et al., 2008.

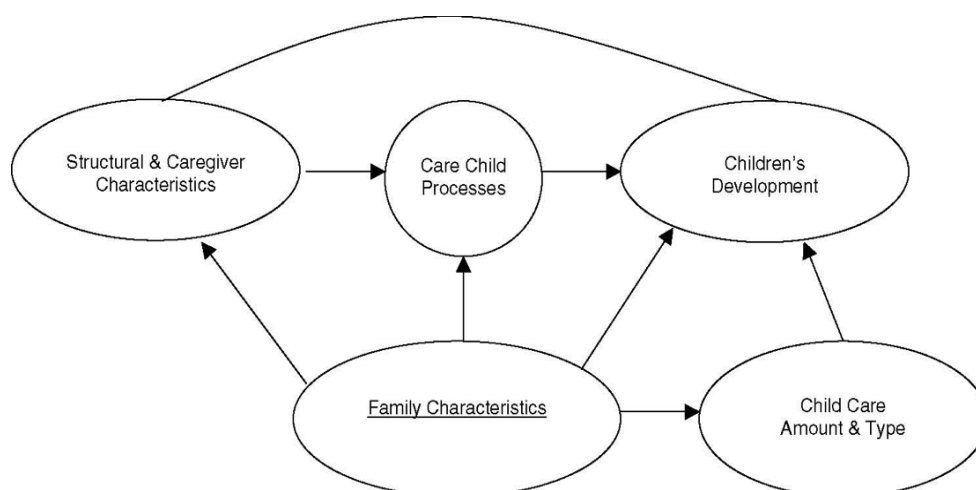
In economic terms, Heckman and Masterov (2007) found that the returns on investments in education are higher for persons who can develop higher ability in their early years. Returns on investment in preschool education are higher than those in school and post-school education (see Figure 2.2), which highlights the significance of ensuring quality in ECEC services.



*Figure 2.2.* Returns to one more dollar of investment as at different ages.  
Source: Heckman and Masterov, 2007.

Vandell and Wolfe (2000) present a model of the relationship between ECEC quality and the developmental outcomes of children (shown in Figure 2.3). ECEC quality is related to family characteristics such as income and parental education. Low income or low parental education may inhibit children's developmental outcomes. Process quality directly influences child developmental outcomes, whilst structural and caregiver characteristics such as staff to child ratios and levels of staff education influence developmental outcomes through process quality (Vandell & Wolfe, 2000). For example, higher staff to child ratios and better staff education and training can support better process quality and produce better developmental outcomes, although such measures may incur extra financial costs (Whitebook, 1995). The amount and type of ECEC may also affect child outcomes: for example, the outcomes of family-based ECEC will differ from that of center-based ECEC, and the number of hours per week in ECEC also influences outcomes (Vandell & Wolfe, 2000). The relationship between ECEC experience and child development outcomes emphasizes the importance of striving to understand and improve ECEC quality. ECEC contributes to the establishment of a positive social and cognitive basis for children that has been

found to powerfully influence their development and well-being (Love, Schochet, & Meckstroth, 1996). The model below contributed to the identification of factors influencing the quality of child education in this research.



*Figure 2.3. Relations between ECEC quality and children's developmental outcomes.*  
Source: Vandell & Wolfe, 2000.

## 2.2 Taiwanese Preschool Context

During the early twentieth century, Taiwan was an agricultural society and most children were taken care of by their families. In 1950, the number of kindergartens and day-care centers was approximately 203 (Hsieh, 2008). In the 1970s, Taiwan's economy grew rapidly as many factories were opened and international trade rapidly expanded and Taiwan changed from an agricultural to an industrial society. This caused an increasing demand for ECEC services and the number of kindergartens and nurseries increased dramatically to meet the changing needs of Taiwanese society over the next three decades (MOE, 2012). However, around the turn of the century a decline in ECEC enrolments accompanying a declining population began to emerge.

In 2011, there were 3,195 kindergartens, 189,792 students, and 14,918 teachers in both the public and private sectors. A notable feature of this data is the prevalence of

female teachers, constituting 99.9 per cent of the ECEC teaching workforce (see Table 2.2) (MOE, 2012). Figure 2.4 shows that the number of students in ECEC in Taiwan has decreased most dramatically over the last five years (MOE, 2010a).

Table 2.2  
*Summary of Kindergartens in Taiwan 2010-2011*

No. of Preschools			No. of Full-time Teachers				No. of Students					
Total	Public	Private	Total	Public		Private		Total	Public		Private	
				M.	F.	M.	F.		M.	F.	M.	F.
3,195	1,581	1,614	14,918	52	6,022	78	8,766	189,792	36,442	34,893	63,163	55,294

Source: MOE, 2012.

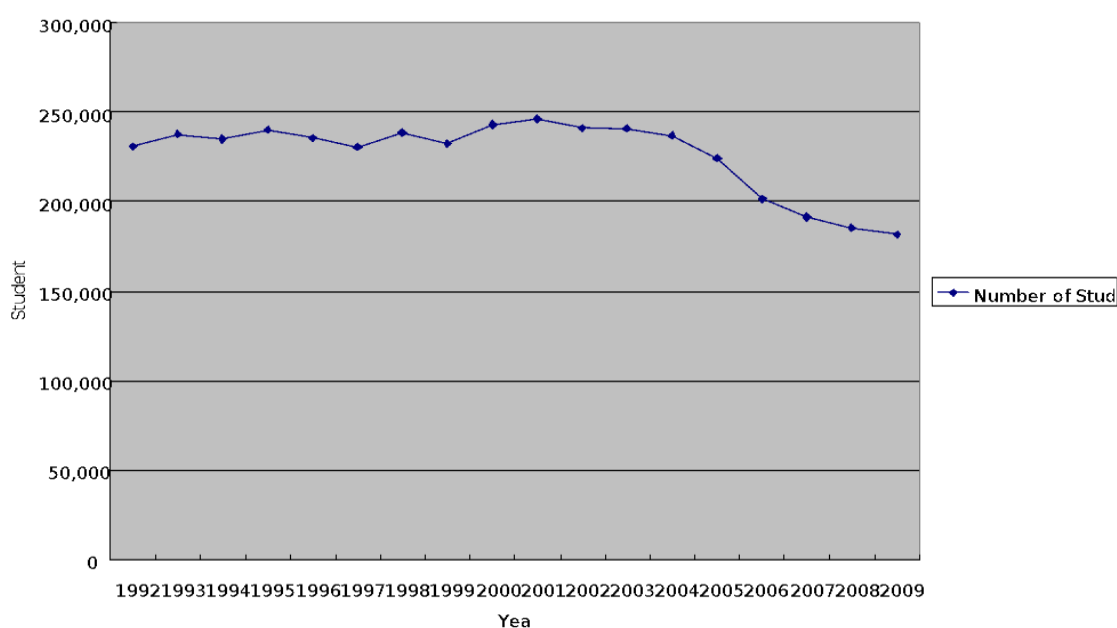


Figure 2.4. Number of students in kindergartens 2009-2010 in Taiwan.  
Source: MOE, 2010a.

Nursery numbers and enrolments have also continuously declined since 2006, as shown in Table 2.3. There were 3,825 nurseries and 236,942 children in 2010 (Department of Statistics MOI, 2010).

Table 2.3

*Summary of Nurseries for the Years 2000-2010 in Taiwan*

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Nurseries	3345	3600	3897	4082	4257	4307	4213	4112	4008	3887	3825
Children	309716	318318	327125	302571	300257	290218	267855	254206	238220	240172	236942
Teachers	21941	21395	22044	22449	22872	22986	25222	24063	23351	23929	24323

Source: Department of Statistics MOI, 2010.

In response to the decrease in enrolments, some private preschools adopted a strategy of reduced fees to enhance market competitiveness, which may negatively influence their capacity to provide quality ECEC. The ECEC industry in Taiwan is in a critical period of re-calibration to the needs of a shrinking population, and how the sector responds to these pressures will impact on the quality of care, the quality of staff, and ultimately the long term child development outcomes of Taiwanese youth.

The number of public preschools provided in Taiwan is inadequate to the needs of the population, and so the majority of Taiwanese children attend private preschools. Public preschools receive more funding from the government, so their tuition fees are lower than private preschools (Hsieh, 2008; Lin, 2002; Yang et al., 2002). This has been observed to cause inequality in accessing ECEC (Yang et al., 2002) and is not conducive to equitable ECEC opportunities for Taiwanese children and families. In addressing this inequity, the Taiwanese government may consider building more public preschools or providing improved subsidies for children attending private preschool. Such a reform is yet to be enacted, and this issue remains a sector-wide concern of parents, teachers and preschool management.

The various social and economic factors identified in this section influence preschool quality on a number of different levels. To clarify the range of factors affecting preschool quality in Taiwan, preschool quality is considered in the following sections in relation to the Sphere of Influence model (Cryer et al., 1999) previously discussed in Chapter One. Of particular relevance are the Classroom Sphere of Influence, the Center Sphere of Influence, the Region Sphere of Influence, and the Country Sphere of Influence.

## **2.3 The Spheres of Influence in Taiwanese ECEC**

### **2.3.1 Classroom Sphere of Influence**

The Classroom Sphere has more influence on process quality than other spheres in the Sphere of Influence model according to its authors (Cryer et al, 1999). The process quality of the Classroom Sphere is influenced by structural elements, such as teacher characteristics, staff to child ratios, and group size (Cryer et al., 1999). These are discussed below.

#### ***Teacher Characteristics***

According to the NAEYC (2008, p. 2), a key characteristic of a good ECEC program is “a teaching staff that has the educational qualifications, knowledge, and professional commitment necessary to promote children’s learning and development and to support families’ diverse needs and interests”. Teacher quality is the most important variable influencing preschool quality and student achievement (Goe, 2007; U.S. Department of Education, 2007). Research suggests that teacher characteristics are related to general education (Kontos & Wilcox-Herzog, 2001), training (Burchinal, Cryer, Clifford, & Howes, 2002), teaching qualifications (Whitebook,

2003), efficacy (Woolfolk, Rosoff, & Hoy, 1990), competence (Collins, 1993), professionalism (Bloomfield 2006; Day & Smethem, 2009), beliefs (Lin, Gorrell, & Silvern, 2001; Woolfolk, Rosoff & Hoy, 1990), and commitment (Abler, 2002). Tseng's (2010, p. 78) research into parents' perspectives in a Taiwanese kindergarten found six features of a good teacher: being patient and affectionate; emphasizing moral education; teaching actively; having good communication skills; being experienced and qualified (i.e. passing the national teachers' examination); and always learning and having a passion for teaching.

Teacher characteristics regulated by government or ECEC industry standards include general education, qualifications, and training. Minimum requirements for these characteristics vary from one country to another. In addition to characteristics subject to regulation, there are also teacher characteristics such as beliefs, commitment, passion, and communication skills which are more difficult to regulate. Teacher characteristics relevant to ECEC quality, then, can be summarized as teacher's beliefs, passion, and commitment, formal education and training, qualifications, communication skills, professionalism, and experience.

### ***Teacher's Beliefs, Passion, and Commitment***

Dedicated teachers who are passionate about their work can provide good service quality and motivate children in learning (Day, 2004). In a study of students undertaking teaching practice at four Taiwanese universities, Hung (2009) found that commitment to teaching as a career is strongly correlated with both expertise and beliefs about teaching. Research suggests that teachers' motivation and commitment is also affected by financial incentives (Skilbeck & Connell, 2004). Teachers' beliefs



regarding teaching practice determine their teaching approaches and are thus a further influence on education quality (Lara-Cinisomo, Fuligni, Daugherty, Howes, & Karoly, 2009). The beliefs that teachers hold about teaching are clearly influential on the quality outcomes of ECEC, but it is not clear from the literature how Taiwanese schools foster and endorse a positive appraisal of the profession and an ongoing commitment to their role among their teaching staff.

### ***Formal Education, Qualifications, and Training***

Research indicates that better educated teachers provide better quality care and education, which can positively affect child development in preschools (Blau, 2000; Burchinal et al., 2002; Goe, 2007; NICHD, 2002; Riley, Roach, Adams, & Edie, 2005; Whitebook, 2003). Formal education can provide teachers with the essential knowledge and skills to use in preschool to appropriately care for and teach children. Requiring teachers in preschools are qualified helps to ensure their quality (Blau, 2000; Burchinal et al., 2002; Goe, 2007; Whitebook, 2003). Research suggests that having studied a bachelor's degree in early care and education programs enables teachers to deliver better-quality ECEC (Barnett, 2004; Kelley & Camilli, 2007). For example, Kelley and Camilli (2007) found that teachers with a bachelor's degree have classroom outcomes 0.15 standard deviations higher than teachers without a bachelor's degree. Training can develop in teachers the knowledge and skills required for better quality service in ECEC (Burchinal et al., 2002; Jackson, 2012) and continuous training options can reinforce learned expertise and bring teachers up to date with new technologies, resources and methods for quality ECEC (Jackson, 2012).

Training can be pre-service, in-service or continuing. Some countries provide initial

teacher education in the form of teacher orientation to help teachers adapt to a new career, but Taiwanese preschools or educational authorities do not generally provide initial teacher education or orientation programs. Newly qualified teachers therefore depend on the capacity of their new employers to induct them into a school environment.

The requirements for general education, qualification, and training in early care and education vary across countries. In the USA, for example, each state sets its own requirements for general education, qualification and training for kindergartens and preschools. In recent years, more and more states in the USA are requiring at least a bachelor's degree for staff seeking to work as teachers in kindergartens and preschools. Taiwanese preschool teachers are also required to complete national qualifications. The required qualification for kindergarten teachers is the Kindergarten Teacher's Certificate, which can be attained either as an undergraduate degree from the department of ECEC of a public university, or an equivalent qualification from the department of ECEC within private universities. Private university graduates are also required to complete 26 ECEC credits and half a year of practice in kindergartens (MOE, 2009a). The required qualifications for nursery teachers are either a bachelor's degree from the department of preschool education of a public university, from the department of ECEC of a private university, or a diploma from the ECEC department of a vocational high school (Children Bureau of the MOI, 2009). ECEC teachers without a Teacher's Certificate can only teach children under the age of five, whereas teachers with a Certificate can teach classes of any age.

Graduates from public education universities need only undertake half a year of

practice and pass the teacher's certificate examination to become a certified teacher. Graduates from private universities are required to have completed twenty-six course credits of ECEC. This imposes an onerous burden on students who study at private universities, since completing twenty-six course credits in MOE-approved courses typically requires students to continue studying after they have graduated for one or two years. It is important for the sake of equity to better align the ECEC courses of public and private universities so that students in private universities are eligible to take the Teachers' Examination after a period of study equivalent to that of public university students. In fact, researchers have found that many ECEC teachers in Taiwan are under-trained or rarely trained, and lack knowledge of children's nutrition, health and safety (Chang & Cheng, 2002; Hung et al., 2008; Sung, 2007). It is apparent that the formal education of ECEC staff in Taiwan is problematic in terms of consistency as well as competence.

### ***Teachers' Experience and Professionalism***

Research demonstrates that teaching experience and professionalism (i.e. knowledge, skills, and attitudes about ECEC) can have positive effects on children's academic achievement (Rice, 2003; Wayne & Youngs, 2003). For preschool teachers, the ability to put theoretical knowledge into practice is very important (Whitebook et al., 2009). Experienced teachers are also valuable because of their ability to provide effective guidance to new teachers. Whitebook et al. (2009) therefore suggest beginning placements at a very early stage and having longer placements in child-serving agencies to learn more practical teaching experience. However, the required duration of placements is only four months in Taiwan, and the high turnover rate of preschool teachers also reduces the overall level of experience in preschools (Whitebook et al.,

2009). Professionalism is enhanced by experience and has been found lacking in Taiwanese preschools (Hung et al., 2008). For example, Taiwanese ECEC teachers lack skills in dealing with child illness (Hung et al., 2008) and in taking care of young children with disabilities (Sung, 2007).

### ***Teaching, Caring and Curriculum***

Most preschools focus on teaching academic skills and knowledge such as arithmetic and language, and may neglect children's physical, emotional, and social development (Lin, 2002). Most parents in Taiwan prioritize strong learning outcomes when making decisions about ECEC (Liang, 2001). However, there are no national curriculum standards for ECEC operations (Lin, 2002). Chinese culture places strong emphasis on academic outcomes in education even for very young children. As a result, most preschools focus on teaching skills and knowledge and may neglect a consideration of children's physical, emotional, and social development when hiring and managing teaching staff (Liou, 2006; Sun, 2011).

Many Taiwanese ECEC teachers do not have adequate knowledge to ensure children's nutrition and health (Hung et al., 2008; Sung, 2007). This lack of knowledge is problematic given that a healthy diet is necessary to provide young children with the capacity for normal growth and development. According to Maslow and Lowery's (1998) Hierarchy of Needs, the physiological, lower order needs, such as food, shelter and security, must be achieved before an individual can proceed to satisfy higher order needs of learning and socialization. It is therefore essential to provide nutritional guidance for children to create a positive attitude towards healthy food and satisfy the nutritional requirements of body and brain in order for children to realize their

potential in learning. Many ECEC teachers in Taiwan, however, do not have adequate knowledge to ensure children's safety and provide a safe and nurturing environment (Chang & Cheng, 2002).

As noted earlier, most ECEC teachers worldwide are female, and in Taiwan this gender dominance is almost 100 per cent. Nelson (2002) conducted a survey of 1,000 NAEYC members' attitudes toward men working in early childhood education. The results indicate that NAEYC members (a) consider it important for men to work in ECE; and (b) perceive low wages, stereotypes, worry of being accused of abuse, and the low social status of the profession as key barriers to men's participation in early childhood education. It appears that positive attitudes towards male participation in ECEC work are not sufficient to remove the barriers to such participation. There remains a clear challenge for the ECEC sector in a wide range of countries to support better participation from men, which entails addressing social stereotypes associated with ECEC provision as well as remuneration.

### ***Staff-Child Ratios and Group Size***

Teachers provide children with instruction and care and interact with children across a variety of activities. Minimum staff-child ratios regulate the number of children cared for by an individual staff member, and maximum group size limits the total number of children who can be in a classroom. Inadequate staff-child ratios undermine the quality of instruction and care and can put children at risk. Research shows that high staff-child ratios and low group size can deliver better care quality (Blau, 2000; de Schipper, Riksen-Walraven, & Geurts, 2006; Gevers, Deynoot-Schaub, & Riksen-Walraven, 2005; NICHD, 2000; Rao, Koong, Kwong, & Wong, 2003; Wang & Shen,

2011) and better developmental outcomes for children (Burchinal et al., 2002; Holloway & Reichart-Erickson, 1998; Huntsman, 2008; Organization for Economic Co-operation and Development [OECD], 2006). Huntsman (2008) summarized the findings in the literature on staff-child ratios and group size and found that high staff-child ratios result in higher global quality scores, higher process quality, and better child outcomes, while low staff-child ratios are associated with lower levels of process quality. Process quality was also found to be higher when a recommended or below-recommended group size was adopted in ECEC.

With the aim of enhancing care quality, countries across the world have been regulating staff-child ratios and group size. In the USA, each state devises its own requirement for staff-child ratios and group size for kindergartens and preschools, while the NAEYC sets a maximum group size of 20 and staff-child ratios of 1:10 as standard for preschools (NAEYC, 2013). In Taiwan, the national government sets the requirements for staff-child ratios and group size. Since the implementation of CECA in Jan, 2011, staff-child ratios for three to five-year-olds remains at 1:15 but has improved from 1:10 to 1:8 for two-year-olds. The maximum group size for three to five-year-olds remains at 30, but has improved from 30 to 16 for two-year-olds.

Improving staff-child ratios in ECEC incurs significant costs for ECEC centers, which are likely to be passed on to parents. The U.S. General Accounting Office ([GAO], 1990) found that increasing staff to child ratios by one would increase costs by 4.6 percent. A more recent study (Aos, Miller, & Mayfield, 2007) found that reducing class size by one child could increase costs by \$200 US dollars per student per year, a 2.5 percent increase for the K–12 budget. Therefore, an essential consideration when

seeking to improve quality of ECEC services is to find a balance between cost and quality.

### **2.3.2 Center Sphere of Influence**

Quality in the Center Sphere of Influence is influenced by principals' leadership and management, average salary, parent fees, labor costs, parent-teacher communication, and physical environment (Cryer et al., 1999). Teacher salary is related to government policy and career opportunities, which are discussed in Section 2.3.4 and Section 2.6, and parent fees are related to affordability, discussed in Section 2.3.4. Labor costs are related to school management, which is discussed below.

#### ***School Leadership and Management***

The NAEYC (2008, p. 3) defines the standard for leadership and management in early childhood programs as follows:

The program effectively implements policies, procedures, and systems that support stable staff and strong personnel, fiscal, and program management so all children, families, and staff have high quality experiences.

Pont, Nusche, and Moorman (2008, p. 10) suggest four areas of responsibility for school leadership: (a) supporting, evaluating and developing teacher quality; (b) goal-setting, assessment and accountability; (c) strategic financial and human resource management; and (d) collaborating with other schools. Principals' leadership influences the quality and outcomes of the school particularly in relation to setting goals, managing the school, recruiting good teachers and motivating staff (Clark, Martorell, & Rockoff, 2009). Principals are not only responsible for profitable management of schools but should also consider the social responsibility of ECEC

institutions and articulate an educational belief or value system focused on enhancing quality.

Principals' leadership skills can have a significant impact on ECEC quality and on teachers' satisfaction with their jobs. For example, principals' leadership styles can influence teacher retention (Daan, Rolf, & Susana, 2007; Hsu, Hsu, Huang, Leong, & Li, 2003). Research shows that principals need specific training to develop and strengthen their leadership skills and educational expertise in order to improve school quality and outcomes within a sustainable fiscal model of operations (Pont et al., 2008). Chin (2007) found that a collective leadership style has positive effects on school outcomes, school effectiveness, teacher job satisfaction, and student achievement in both Taiwan and the USA. In particular, Seashore-Louis, Leithwood, Wahlstrom and Anderson (2010) found that a collective leadership style supporting collaborative work cultures has more impact than an individualistic leadership style on student achievement. They argue that a collective leadership style can effectively motivate staff to work to improve quality and student achievement.

### ***Parent-Teacher Communication***

Many countries have included parent involvement in the delivery of ECEC at preschools as a requirement in ECEC regulations. The NAEYC (2008, p. 3) defines the standard for parent involvement in early childhood programs as follows:

The program establishes and maintains collaborative relationships with each child's family to foster children's development in all settings. These relationships are sensitive to family composition, language, and culture.

There is substantial evidence that parental involvement in ECEC centers enhances ECEC quality (Barnard, 2004; Clements, Reynolds, & Hickey, 2004;



Ou, 2005; Weiss, Caspe, & Lopez, 2006). In the Taiwanese context of declining fertility, parents are very focused on the care quality provided to their children in schools and make increasing numbers of requests of teachers and schools (Hung, 2012). Some parents may have differing ideas on the teaching and care that is or should be provided by schools. This can cause tension in the relationship between parents and teachers and negatively influence the teachers' morale, stress and retention (Chen, 2003; Hung, 2012). Teachers may need to improve their communication skills through in-service training supporting effective, sensitive, and responsive communication with parents and strategies for engaging parents in a partnership for improving the quality of child development.

### ***Physical Environment***

Physical environment refers to the space and facilities available for children to play, learn and grow. The NAEYC (2008, p. 3) defines the physical environment standard for early childhood programs as follows:

The program has a safe and healthful environment that provides appropriate and well-maintained indoor and outdoor physical environments. The environment includes facilities, equipment, and materials to facilitate child and staff learning and development.

Most parents visit preschools before they choose which preschool to send their children to, and their first impression is of the space and facilities. Research studies show that the safety of the physical environment is always a key priority in parents' perceptions (Liang, 2001). In Taiwan, most public nurseries share space with community centers, and they often do not have adequate space and facilities specific to early childhood needs. After the CECA came into force on

January 2012, nurseries were required to transform themselves into preschools within one year. These nurseries may face difficulties in meeting the more stringent criteria for preschool standards outlined by CECA as they attempt to complete the transition.

### **2.3.3 Region Sphere of Influence**

The Spheres of Influence model for ECEC Programs takes into account the influence of regional government policies on the quality of service in preschools. Cryer et al. (1999) contend that more stringent ECEC regulations can support higher quality outcomes. In the USA and Australia, each state can develop its own ECEC and wages policy, but many other countries, including Taiwan, decide ECEC and wages policy at a national level. In Taiwan, local governments are responsible for the implementation of policy, subsidies, and evaluation of the preschool but not for policy development itself. This results in a "one size fits all" regulation that may not address the needs of various regional areas within Taiwan. A further problem in Taiwan is the continued operation of unregistered preschools and illegally registered schools. The government has been unable to control this unlawful activity to date, which implies a lack of adequate human resources in local government or inadequate policies and resources for ensuring compliance. Although national government in Taiwan has responsibility for regulating fees and wages across the entire ECEC, it is evident from the scenarios in other countries, such as the USA, that considerable variability in affordability of ECEC across the country can emerge. Research data demonstrates that the cost of care is a high burden for parents, especially for single parents or low SES families in the USA, and that this burden falls disproportionately on some states (Child Care Aware of America, 2012). Unfortunately, such data does not seem to exist for Taiwan.

Research into this issue would be a valuable aid for the Taiwanese government in identifying and addressing regional variations and inequities within Taiwan. The following subsection outlines the Early Care Environment Rating Scale (ECERS) quality measurement and the system of quality evaluation used in Taiwanese preschools under the authority of local governments.

### *Approaches to Evaluate ECEC*

Quality measurement of ECEC can take the form of both direct and indirect measures. Direct measures are normally observational in nature, while indirect measures include surveys, interviews, and focus groups to collect information about various quality indicators. The Early Care Environment Rating Scale is an observational measure which has been used widely in many countries to measure ECEC quality (Harms & Clifford, 1980). In 2005, ECERS-R (Revision) was created as a revised version of ECERS modified to include culturally diverse settings (Harms, Clifford, & Cryer, 1998). The ECERS-R contains 43 items and evaluates ECEC for children aged 2.5 through to 5 years in seven areas: (1) space and furnishings (2) personal care routines (3) language-reasoning (4) activities (5) interactions (6) program structure (7) parents and staff.

Since 1993, the quality of preschools in Taiwan has been evaluated by the Context, Input, Process, and Product (CIPP) evaluation model, which includes context evaluation, input evaluation, process evaluation and product evaluation (Stufflebeam, 1966). The CIPP model is a comprehensive evaluation of programs, projects, personnel, products, institutions, and systems. In recent years, the evaluation model has been gradually changed to “case-object oriented” where the objectives, methods

and standards are determined by all stakeholders concerned, including principals, teachers, parents, government officials, and experts and scholars (Lin & Ching, 2012). Lin (2011) provides information on the frequency and duration of evaluations and the composition of evaluation teams in the Taiwanese evaluation system under the CECA for kindergarten and preschool education (see Table 2.4). Preschool evaluation will consist of two stages: the Fundamental Evaluation, repeated every one to three years, and the Professional Evaluation, repeated every three to five years. Preschools may move from the Fundamental Evaluation schedule to the Professional Evaluation schedule by meeting quality criteria, although the exact criteria to be employed have yet to be decided. The duration of the evaluations for kindergartens and nurseries are one day and half a day respectively, while the Fundamental Evaluation and Professional Evaluation for preschools last one to three hours and one day respectively.

Table 2.4  
*Evaluation System for Kindergartens, Nurseries and Preschools*

Item	Kindergarten evaluation	Nursery school evaluation	Child care integration	
			Fundamental evaluation	Professional evaluation
Frequency	5 years	5 years	1 to 3 years	3 to 5 years
Visiting time	1 day	Half day	1 to 3 hours	1 day
Evaluation commissioners	Administrative personnel of education bureau of city/county government, early childhood professionals who had professional evaluation training	Adm. personnel of education bureau of city/county government, early childhood professionals who had professional evaluation training	Adm. personnel of education bureau of city/county government, public safety forces who had fundamental evaluation training	Early childhood professionals who had professional evaluation training

Source: Lin, 2011.

### **2.3.4 Country Sphere of Influence: National Government Policies**

The Spheres of Influence model for ECEC Programs demonstrates that economics, social realities, and national government policies can influence the quality of service in preschools. The national government in Taiwan is responsible for ECEC policy including regulation of standard rates of pay for ECEC staff, whose low wages compared to other professions in Taiwan may affect the staff's morale and work to downgrade the quality of ECEC. The significantly decreasing fertility rate in Taiwan and the resulting fall in enrolments in preschools have had a great impact on the management of preschools. Public preschools, which account for a minority of preschools in Taiwan, have lower tuition fees than private preschools due to their higher government funding (Lin, 2002). This causes inequity in terms of access to high quality child education (Lu, 2000) and also in terms of staff remuneration as the teachers in public preschools have much higher pay and benefits. Hence, the Taiwanese ECEC industry experiences some unique issues and challenges as well as the more generic problems of the ECEC industry across multiple countries. It is useful to compare Taiwanese national policies and outcomes with other countries in respect of ECEC in order to understand the country sphere of influence.

Finland has achieved the highest quality ranking for provision of ECEC in the Starting Well Index (overall index 91.8) and can provide a powerful reference for improving Taiwanese preschool quality. Figure 2.5 shows a spider web chart on policy inputs across OECD countries using a normative score, where 100 is the maximum value and zero is the minimum value (Taguma, Litjens, & Makowiecki, 2012). Finland performs above the OECD average on seven out of nine indicators. These seven indicators are: (1) public expenditure on ECEC at age three; (2) public expenditure on

ECEC at age five; (3) paid paternity leave; (4) required International Standard Classification of Education (ISCED) levels for staff; (5) required ISCED levels for teaching staff; (6) staff-child ratio (zero to three year olds); and (7) staff-child ratio (three to six year olds).

These policy inputs have resulted in highly positive policy outcomes for Finland, which performs above the OECD average on ten out of fourteen indicators (Taguma, Litjens, & Makowiecki, 2012: see Figure 2.6). The main gaps between Taiwan and Finland with regard to ECEC quality are public expenditure on ECE, the staff-child ratios, and paid paternity leave. It seems likely that if Taiwan could close this gap to some extent, better ECEC quality outcomes could be achieved.

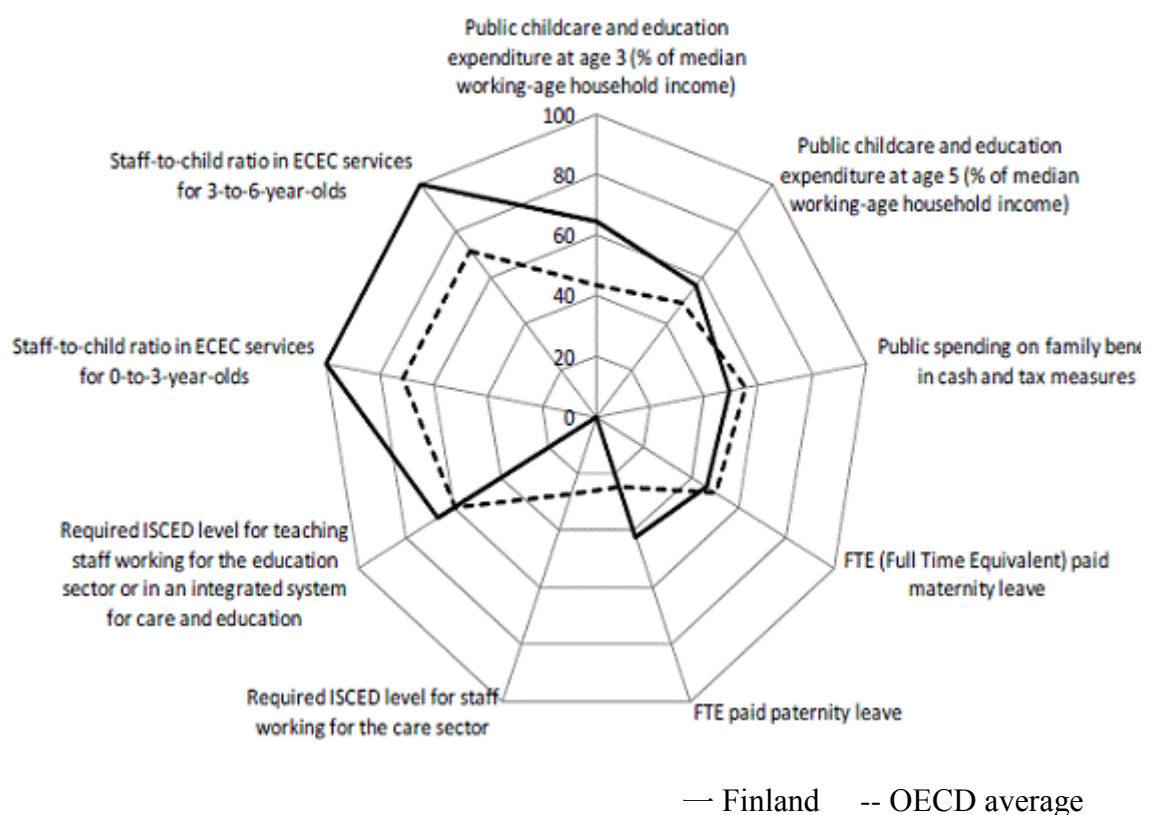
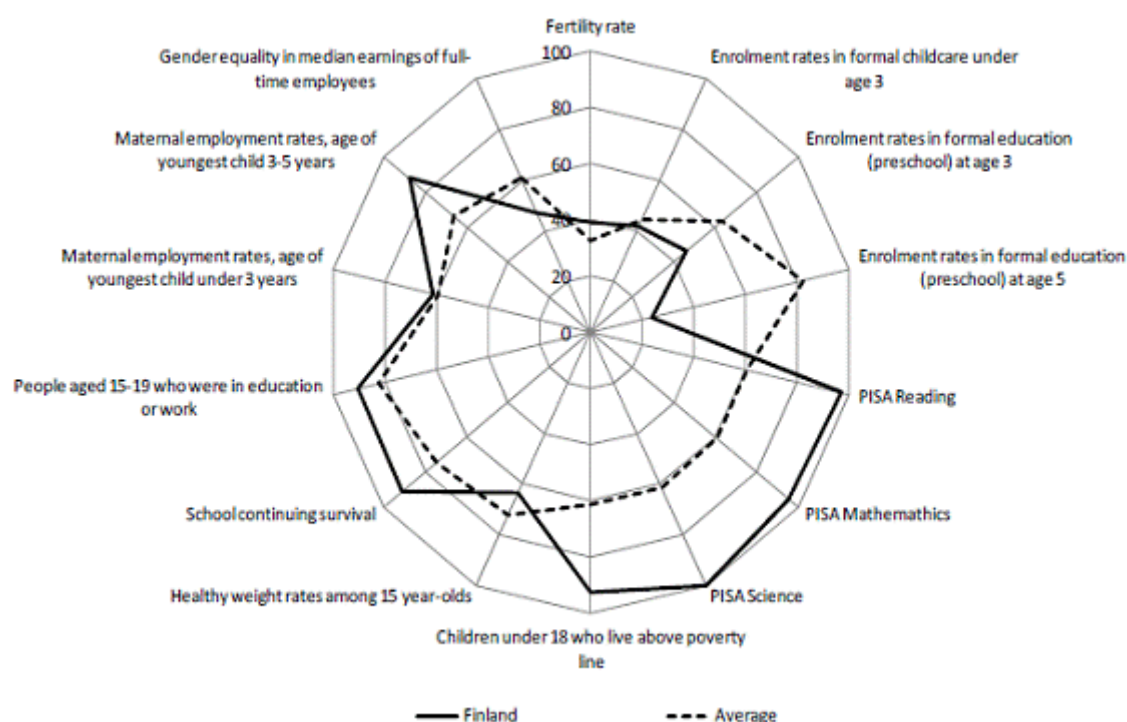


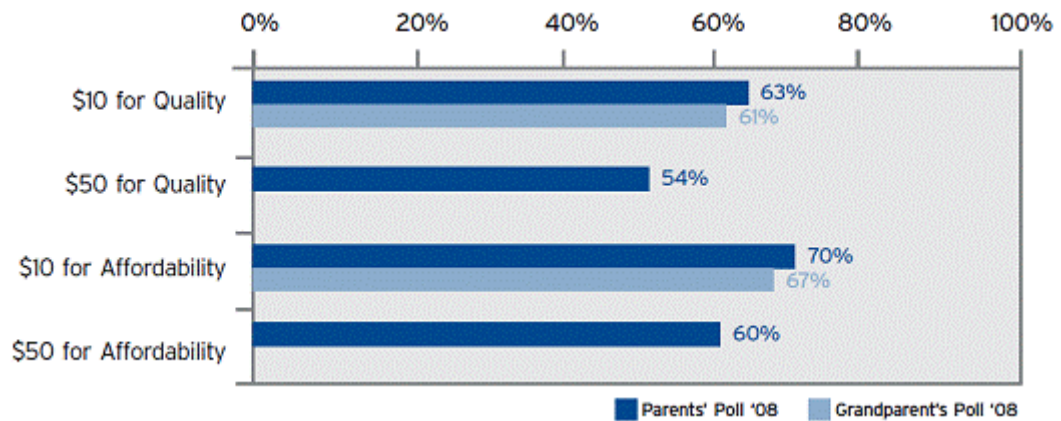
Figure 2.5. A spider web chart of policy inputs.  
Source: Taguma, Litjens, and Makowiecki, 2012.



*Figure 2.6.* A spider web chart of policy outcomes across sectors in Finland.  
Source: Taguma, Litjens, and Makowiecki, 2012.

Figure 2.7 (Appendix A2) and Figure 2.8 (Appendix A2) compare the public expenditure level on ECEC for three-year-olds and five-year-olds respectively in 2003 and 2007 (OECD, 2011). For both age groups, Finland is above the OECD average, while Australia and the United States are well below. Given Finland's consistently high ECEC outcomes, the Finnish model of ECEC might be an appropriate model for emulation by Taiwan, especially in regard to expenditure on young children. However, whereas Finland is a social democratic country with high tax revenue, Taiwan may not have sufficient tax revenue to sharply increase public expenditure on young children, so any increase may have to be gradual and perhaps modest compared to Finland's example. Taxpayers (parents and grandparents) in the USA have recently indicated a willingness to pay extra taxes to improve ECEC affordability through a national survey (NACCRRRA (2009) see Figure 2.9). Results show that most parents (70 percent) and grandparents (67 percent) were willing to pay an extra \$10 dollars

annually in taxes to improve the quality or affordability of ECEC. The Taiwanese government might usefully collect similar data as a reference for effective policy seeking to improve the quality and affordability of ECEC in Taiwan.



*Figure 2.9.* Support for paying extra taxes for child care (USA).

Source: NACCRRA, 2009.

The Spheres of Influence model is a useful tool of analysis for recognizing the breadth of influences on Taiwanese ECEC. It acknowledges the roles of individuals, schools as well as local and national governments in ensuring a quality ECEC industry. The following section describes in further detail the major Taiwanese government policies and strategies adopted to promote quality ECEC provision in the last decade.

## 2.4 Taiwanese Government ECEC Policies and Strategies in Focus

Based on the principles of justice and equity, the Taiwanese government has attempted over the last ten years to address issues of consistency, equity and affordability of ECEC through several strategies including a “Voucher Policy”, a “Five-year-old Underprivileged Children Head-Start Program”, as well as the “Free Tuition for 5 year old Children”. These policy developments are described below.



#### 2.4.1 Child Education and Care Act

In Taiwan, kindergartens emphasize child education, while nurseries focus on providing care services for children under the age of six. Due to different regulations covering different aspects of childhood education and care such as curriculum standards, teacher qualifications and teacher training for kindergartens and nurseries, it is not easy to provide the same quality in education and care for children from age two to six in the two different types of educational institutions (Hsieh, 2004).

In order to solve this problem, the Taiwanese government implemented the CECA on January 1, 2012 to integrate kindergartens and nurseries (renamed as preschools) to set the same standards of preschool services to enhance ECEC quality (Ministry of Justice, 2011). Nurseries and kindergartens are required to convert to preschool status within one year after the CECA comes into force. The framework of the CECA is shown in Table 2.5. Under the CECA, the MOE is the single authority of preschools which accept children aged two to six for ECEC. Regular evaluations monitoring compliance with these standards are conducted by the MOE at the request of local governments, who determine both the evaluation schedule and post-evaluation enforcement of quality standards.

Table 2.5

*The ECEC Service on Childhood Education and Care Act*

Authority	Service	Children Age
MOE	Kindergarten (convert to preschool within one year after implementation of CECA)  Nursery (convert to preschool within one year after implementation of CECA)	2-6

Source: Ministry Of Justice, 2011.

Lee (2007) observes that the MOE has tighter regulations (e.g. for teacher qualifications) than the MOI. While consolidation of ECEC authority into a single department is a positive move, it may mean that many ECEC teachers in nurseries will not fulfill the qualification requirements of the MOE for children aged more than two after the CECA has been enforced from January 2012, and they will need in-service training to meet the qualification requirements. Lee (2007) also proposes the establishment of a new department within the MOE specifically to manage ECEC for better control, coordination, and monitoring of ECEC affairs. This proposal has not yet been adopted, although it may have merit in terms of better enforcement and facilitation of ECEC quality standards.

#### **2.4.2 Voucher Policy**

From 2000, with the aim of subsidizing the fee difference between public and private kindergartens (PK) and nurseries, vouchers were implemented for children aged five enrolled in registered private institutions (Lee, 2006; MOE, 2009). Kindergartens and nurseries can apply for NT\$10,000 per child each year under this system. Lo (2012) identify some of the impacts of this voucher program. They found that this program has the positive effect of encouraging unregistered preschools to legally register in order to be eligible for these funds, but that they also increase the workloads of administrators in nursery schools and kindergartens. Lo also criticize the voucher policy for subsidizing kindergartens based on their list of voucher recipients rather than distributing the vouchers directly to parents, which would provide parents with greater choice in which kindergarten they could send their children to (Lo, 2012). Lee (2009) criticizes the voucher program on the basis that the amount of the subsidy is insufficient to address the needs of low-SES families and on the basis that it is too

limited, as in 2004, 53 percent of 3-6 year-old children in Taiwan were not enrolled in preschool because of the problem of affordability. In addition, the amount of subsidization from the voucher program is not adequate to address the needs of low Social Economic Status families.

### 2.4.3 Five-year-old Underprivileged Children Head-Start Program

Since 2004, the Taiwanese Ministry of Education has provided five-year-olds with the Underprivileged Children Head-Start Program, which provides education opportunities for children from underprivileged areas, low income families and mid-low income families with an annual income below NT\$600,000 (\$20000 US dollar) (MOE, 2010). The Five-year-old Underprivileged Children program is explained in Table 2.6. Families with an annual income of over NT\$600,000 living on remote islands or aboriginal townships qualify the subsidy criteria of the Five-year-old Underprivileged Children program. ECEC is therefore an economic burden for them, as the voucher subsidy only partly covers the cost of preschool.

Table 2.6  
*Subsidy Criteria for Five-year-old Underprivileged Children*

Subjects	Criteria	Amount
Families with children between five years of age and the first year of elementary school	Low income families and mid-low income families with annual income below NT\$300,000 nationwide.	Full subsidy– children are eligible to enter public kindergartens for free or receive subsidies equivalent to the sum of tuitions and fees of public kindergartens if private institutions are chosen.
	Families with annual income between NT\$300,000 and NT\$600,000.	Priority and full subsidy for public kindergartens. Those who choose private institutions are subsidized at a maximum of NT\$20,000 per year.

	Families on remote islands and Aboriginal townships with an annual income exceeding NT\$ 600,000.	Children entering public kindergartens are subsidized a maximum of NT\$5,000 per annum, and children entering private kindergartens are subsidized a maximum of NT\$20,000 per year.
--	---	--

Source: MOE, 2010.

(1 US dollar = 30 NT; 1 AUD = 30 NT)

#### 2.4.4 Free Tuition for Five Year-Old Children

Free tuition for five year-old children has been implemented by the MOE from August, 2011 along with the termination of the voucher program (MOE, 2011a). This scheme provides greater subsidies to all age five children than the vouchers program did, thus relieving some of the burden of parents of five year-old children attending preschools. The subsidies for different household income groups are illustrated in Table 2.7 (Chiu & Wei, 2011). Each five year-old child who attends public preschool qualifies for 14,000 NT (\$467 US dollar) per year, and those who attend private preschool qualify for 30,000 NT per year. Low SES children can access additional grants according to their annual household income (there are three levels: below 300,000, 300,001-500,000, 500,001- 700,000 NT).

Table 2.7

*Annual Subsidies for Different Household Income Groups*

Annual Household Income Type of Program Attending	Public Sectors		Private Sectors	
	Tuition-free subsidy	Additional grants	Tuition-free subsidy	Additional grants
Below NT \$ 300,000	NT \$ 14,000	NT \$ 20,000	NT \$ 30,000	NT \$ 30,000
NT \$ 300,001-500,000	NT \$ 14,000		NT \$ 30,000	NT \$ 20,000
NT \$ 500,001-700,000	NT \$ 14,000	NT \$ 12,000	NT \$ 30,000	NT \$ 10,000
Above NT \$ 700,000	NT \$ 14,000	0	NT \$ 30,000	0

Source: Chiu & Wei, 2011.

(1 US dollar = 30 NT)

The voucher program provided subsidies for all five year-old children, which may have encouraged unregistered preschools to legally register for funding. The “Five-year-old Underprivileged Children Head-Start Program” provided subsidies for low SES five year-old children. These two programs only provided limited subsidies to parents that could relieve only part of the burden of parents of five year-old children attending preschools. The “Free tuition for five year-old children” program, implemented from August, 2011, provides greater subsidies to all age five children than the earlier policies. But there are still costly fees other than tuition fees such as meal fees, material fees and transportation fees in preschool. In addition, the government does not subsidize children under the age of five in preschool. Thus, the government may need to provide greater subsidies to parents to improve the affordability of sending their children to preschools. Finally, these policies only subsidize fees for children, which cannot enhance the quality of the preschools. The government may need to subsidize preschools and the salary of the staff in order to enhance ECEC quality.

## **2.5 American and Australian government ECEC Policies and Strategies compared with Taiwan**

This section provides an overview of ECEC in the USA and Australia in order to provide comparative data and practices useful to the Taiwanese ECEC sector and suggest possibilities for reform and improvement of the sector in relation to ECEC quality and career opportunities.

### **2.5.1 Preschool in the USA**

The ECEC industry in the United States began in the 1830’s (Kamerman & Gatenio, 2007) and has experienced continual growth since then. There are no national standards for preschool education, preschool teachers’ professional requirements,

staff-child ratios, maximum group size, or curriculum. Usually, early education teacher's degree requirements are stricter in public schools than in private schools (National Institute for Early Education Research [NIEER], 2004). In the United States, licensing and accreditation guidelines have been developed by the NAEYC, the National Early Childhood Program Accreditation (NECPA) and National Association for Family Child Care (NAFCC).

Of these accreditation guidelines, those of the NAEYC are considered to be among the most rigorous (Neugebauer, 2009). Despite its position as the most widely used accreditation standard, only 15% of ECEC centers in the USA currently use it (WHSCDA, 2010), a fact that demonstrates the diverse nature of ECEC accreditation in the USA. NAEYC accreditation for ECEC includes ten standards, which are quoted below (NAEYC, 2008, pp. 1-3):

1. Promote positive relationships for all children and adults to encourage each child's sense of individual worth.
2. Implement a curriculum that fosters all areas of child development: cognitive, emotional, language, physical, and social.
3. Use developmentally, culturally, and linguistically appropriate and effective teaching approaches.
4. Provide ongoing assessments of a child's learning and development and communicate the child's progress to the family.
5. Promote the nutrition and health of children and protect children and staff from injury and illness.
6. Employ a teaching staff that has the educational qualifications, knowledge, and professional commitment necessary to promote children's learning and development and to support families' diverse needs and interests.
7. Establish and maintain collaborative relationships with each child's family.
8. Establish relationships with and use the resources of the community to support the achievement of program goals.
9. Provide a safe and healthy physical environment.
10. Implement strong personnel, fiscal, and program management policies so that all children, families, and staff have high-quality experiences.

States also draft their own guidelines and monitor their implementation, often through inspections of licensed centers. It is the responsibility of each state to consider local needs and local culture to ensure quality standards. This decentralized system of quality control results in widely varying standards across US states. NIEER suggests ten quality standards for preschools in the USA:

- (1) States should have comprehensive early learning standards,
  - (2) Lead teachers must have bachelor's degrees,
  - (3) Lead teachers must have specialized training in a pre-K area,
  - (4) Assistant teachers must have a Child Development Associate (CDA) credential or equivalent,
  - (5) Teachers must receive at least 15 hours/year of in-service professional development and training,
  - (6) Maximum number of children per classroom must be 20 or fewer,
  - (7) Ratio of staff to children in classroom for three-four year-olds must be 1:10 or better,
  - (8) Screenings and referrals for vision, hearing, and health must be provided, and at least one additional support service must be provided to families;
  - (9) At least one meal must be provided daily; and
  - (10) Site visits must be used to demonstrate ongoing adherence to state program standards.
- (Barnett, Carolan, Fitzgerald, & Squires, 2011, p. 27)

In 2011, 49 states of the USA had comprehensive early learning standards for state-funded initiatives, but only 16 states mandated assistant teacher degree standards, only 24 mandated daily provision of meals, and only 29 mandated that teachers must have a BA (Barnett et al., 2011: see Table 2.8).

Although ECEC standards and regulations in the USA are the sole responsibility of state governments, the federal government has established Head Start program to increase the school readiness of children in low income families from birth to age five (Butler, Gish, & Shaul, 2004) and the Good Start, Grow Smart (GSGS) program to

promote literacy and school readiness (U.S. Department of Health and Human Services, 2006). The goal of Head Start is to ensure that the children enrolled in the program are ready to begin school. It provides health check-ups, hygiene, nutrition, personal care, and safety. GSGS encourages the States to develop early learning guidelines, aligned with each State's K-12 standards, that include expectations for what children should know and be able to do when they enter kindergarten in the areas of early reading and early math skills.

Table 2.8  
*Number of States in State-Funded Pre-K ECEC Centers Meeting Quality Standard Benchmarks (NIEER)*

POLICY	BENCHMARK	OF THE 51 STATE-FUNDED PRE-K INITIATIVES, NUMBER MEETING BENCHMARKS
Early learning standards .....	Comprehensive .....	49
Teacher degree .....	BA .....	29
Teacher specialized training .....	Specializing in pre-K .....	45
Assistant teacher degree .....	CDA or equivalent .....	16
Teacher in-service .....	At least 15 hours/year .....	43
Maximum class size .....	20 or lower .....	45
3-year-olds		
4-year-olds		
Staff-child ratio .....	1:10 or better .....	45
3-year-olds		
4-year-olds		
Screening/referral .....	Vision, hearing, health; and .....	37
and support services	at least 1 support service	
Meals .....	At least 1/day .....	24
Monitoring .....	Site visits .....	35

Source: Barnett et al., 2011.

These USA quality standards and their considerations can provide a useful model for Taiwanese ECEC centers in providing target quality standards in preschool across Taiwanese cities and counties which are home to diverse communities with different backgrounds, resources and needs. The following table, however, indicates that the capacity to achieve these benchmark standards remains variable across different states



emphasizing the aspirational nature of benchmarking and the importance of addressing regional differences in ECEC supply, demand and capacity.

### **2.5.2 Preschool in Australia**

The terminology used in Australia for ECEC differs somewhat from that of other countries. The term “preschool” is used to describe ECEC in the year before formal schooling (aged four). Preschool provides educational and developmental programs to children. Preschool integrated with childcare is referred to as long day care. It is a center-based facility which provides educational and care services for children under age five. The term “kindergarten” is also used in many states to refer to preschool. The terminology and starting ages vary across jurisdictions as shown in Table 2.9 (Dowling & O’Malley, 2009). The terminology used to describe the year before formal schooling for four year-old children is “preschool” or “kindergarten” depending on the jurisdiction. The term for the first year of formal schooling for five year old children also varies across jurisdictions: it may be “kindergarten”, “preparatory”, or “pre-Primary”. The second year of formal schooling in Australia is termed “Year One”. For example, in NSW, terms for the year before formal schooling, the first year of formal schooling, and the second year of formal schooling are “preschool”, “kindergarten”, and “Year One” respectively.

The percentage of registered preschool providers, by management type and jurisdiction, in 2008 is shown in Table 2.10 (Dowling & O’Malley, 2009). Preschool providers can be community, private, or government. In NSW, VIC, and QLD, most preschool providers are community providers, accounting for 80.6%, 74.2%, and 92.9% of the total respectively. In WA, SA, TAS, ACT, and NT most preschool

providers are government providers, accounting for 100%, 95.1%, 73.3%, 91.3%, and 96.4% of the total respectively.

Table 2.9

*Preschool Names and Starting Ages in Australia*

		Year before formal schooling	First year of formal schooling	Second year of formal schooling
NSW	Name Age	Preschool 4 (by 31 July)	Kindergarten 5 (by 31 July)	Year 1
VIC	Name Age	Kindergarten 4 (by 30 April)	Preparatory 5 (by 30 April)	Year 1
QLD	Name Age	Kindergarten 4 (by 30 June)	Preparatory 5 (by 30 June)	Year 1
WA	Name Age	Kindergarten 4 (by 30 June)	Pre-Primary 5 (by 30 June)	Year 1
SA	Name Age	Kindergarten Continuous entry after 4th birthday	Reception Continuous entry after 5th birthday	Year 1
TAS	Name Age	Kindergarten 4 (by 1 January)	Preparatory 5 (by 1 January)	Year 1
ACT	Name Age	Preschool 4 (by 30 April)	Kindergarten 5 (by 30 April)	Year 1
NT	Name Age	Preschool Continuous entry after 4th birthday	Transition 5 (by 30 June)	Year 1

Source: Dowling & O'Malley, 2009.

Table 2.10

*Percentage of Registered Preschool Providers, by Management Type, by Jurisdiction, 2007/08*

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
Community	80.6%	74.2%	92.9%	n/a	4.9%	n/a	8.7%	-
Private	8.6%	8.2%	n/a	n/a	n/a	26.7%	n/a	3.6%
Government	10.8%	17.6%	7.1%	100%	95.1%	73.3%	91.3%	96.4%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Dowling & O'Malley, 2009.

Different licensing and regulatory requirements apply in each state. These services are monitored usually every two and half years for quality through the National Quality Assurance System established through the National Quality Framework (2009), a program that demonstrates the commitment of Australian governments to preschool quality. The national quality framework is discussed in the next subsection.

### ***Australia's National Quality Framework***

In 2009, the Council of Australian Governments (COAG) established a new National Quality Framework (NQF) for early childhood education and care, which began to be applied to preschools from 1 January 2012 (Council of Australian Governments, 2009). The NQF coordinates state and federal regulatory bodies under Commonwealth legislation. It includes a National Quality Standard, which provides guidelines for ECEC quality in seven key areas, namely:

1. Educational program and practice
2. Children's health and safety
3. Physical environment
4. Staffing arrangements, including staff-to-child ratios and qualifications
5. Relationships with children
6. Collaborative partnerships with families and communities
7. Leadership and service management.

(Council of Australian Governments, 2009, p. 4)

In Australia, the cost of ECEC is subsidized through the Child Care Benefit (CCB) and the Child Care Rebate (CCR) provided by the Australian Government. The CCB is based on family income and varies for every family. The CCR, on the other hand, is not income-tested. It is available for parents who work, train or study and use an approved ECEC provider. For these parents, 50 percent of child care costs are subsidized. In 2010, the CCR was increased to a maximum of \$7,778 (AUD) per child (Department of Education, Employment and Workplace Relations, 2010). In order to

ensure access to affordable ECEC in remote areas, incentives such as extra remuneration to increase the number of ECEC teachers in remote areas may be required. An example of such a policy is the Queensland government's provision of extra subsidies for remote areas (as determined by a standard index) of 50% of the usual rate (Queensland Government, 2012).

These policies have effectively increased the affordability for families of enrolling their children in preschools. This system may provide a useful model for how Taiwan could reduce the burden for parents of sending their children to preschool. From 2013, the Taiwanese government has introduced a policy allowing a family with five year-old children prior to primary school to deduct \$US833 per year if the family income is under \$US 37, 667 per year. The Taiwanese government has thus taken steps to increase the affordability of ECEC for families, but it may need to take further measures in order to do so effectively.

### **2.5.3 Comparisons of Government Expenditure on Pre-primary Education between the Preschool Sectors in Taiwan, Australia, and the USA**

For the 2011 school year, the education expenditure for Taiwanese preschools was only 3.44 percent of the total education budget, compared with 26.52 percent for primary schools (MOE, 2012: see Table 2.11). Given that research indicates that preschool education can significantly influence children's outcomes in the long term, the Taiwanese government may consider providing more funds for preschools.

Government expenditure on pre-primary education in Australia and the USA is compared with that of the OECD countries in Table 2.12 (OECD, 2010). The

percentage of GDP spent on pre-primary education for Australia and the USA is 0.1 and 0.4 respectively. These government contributions are significantly lower than the average expenditure of OECD countries, reflecting a possible assumption by Australian and US governments that childcare and child education are largely private matters requiring private investment. In Taiwan, preschool education is not compulsory. Taiwanese government expenditure on preschool was approximately 0.18 percent of GDP in 2010 (Department of Statistics, MOE, 2011). This figure is higher than Australia's 0.1 percent, but lower than the United States' 0.4. The figures for these three countries are much lower than Iceland's 0.9 percent or France's 0.7 percent. If the governments of Taiwan, Australia and the USA were to support daycare by increasing expenditure on pre-primary education, as Iceland and France have done, ECEC quality in their preschools might be considerably enhanced. However, the quality of ECEC is not exclusively affected by economic conditions; government policy, culture, school management, and the dedication of teachers can also make a difference.

Table 2.11  
*Taiwanese Education Expenditure at All Levels of Schools in School Year (unit %)*

School Year	Total	Kindergarten	Primary School	Junior High School	Senior High School	Senior Vocation School	Junior College	University & College	Supp. & Special Education School
2007	100	2.78	27.10	16.40	10.39	5.09	0.67	36.96	0.61
2008	100	2.89	26.60	15.59	10.70	5.20	0.79	37.59	0.64
2009	100	2.96	26.89	15.14	10.50	5.42	0.73	37.71	0.66
2010	100	3.19	26.61	14.73	10.70	5.43	0.74	37.95	0.64
2011	100	3.44	26.52	14.61	10.60	5.45	0.77	37.93	0.69

Source: Adapted from Ministry of Education (2012).

Table 2.12

*Expenditure on Pre-Primary Education for Children over Three Years as a Percentage of GDP*

OECD	Australia	Austria	Belgium	Denmark	Finland	France	Germany	Hungary	Iceland	Italy	Japan
GDP	0.1	0.5	0.6	0.7	0.4	0.7	0.5	0.7	0.9	0.5	0.2
OECD	Korea	Mexico	Nether lands	Poland	Portugal	Slovak	Spain	Sweden	Switzer land	UK	United States
GDP	0.2	0.6	0.4	0.6	0.4	0.4	0.7	0.6	0.2	0.3	0.4

Source: Adapted from OECD, 2010.

### 2.5.4 Teacher Qualifications in Australia, USA and Taiwan

Teacher qualification requirements in classrooms in Australia, Taiwan and USA are shown in Table 2.13 (Appendix A1) (NQS, 2009). The Australian qualification requirements shown are to be implemented from 1 January 2014. A teaching qualification is required to teach in preschools in Australia, but an early childhood qualification is not always required. According to the Australian NQS, the qualification requirements depend on the size of the class. At least 50% of educators must have a diploma level ECEC qualification and the remaining educators must have a Certificate III level ECEC qualification. In addition, an early childhood teacher must be in attendance for some of the time whenever less than 26 children are in attendance, and an early childhood teacher must be in attendance whenever 26 children or more in attendance.

In Taiwan, the classroom requirements for ages two to four depend on the children in attendance. For children younger than four, eight or fewer children require one ECEC staff, and nine children or more requires two. For children older than three, 15 or fewer children require one ECEC staff, and 16 children or more require two. For five-

year old children, at least one teacher with a teacher's certificate is required. In the USA, the states make their own qualification requirements for ECEC staff. However, governments in all three countries are seeking to ensure enhanced and consistent minimum qualifications in ECEC.

#### **2.5.5 Preschool Regulatory Frameworks in Australia, USA and Taiwan**

A comparison of the regulatory framework of preschools in Taiwan, Australia, and the USA is summarized in Table 2.14. The weaknesses for all three countries are that there are no national standards in the curriculum. The strengths for Taiwan are national standards on licensing regulations, teacher qualifications, and quality evaluation. Moreover, the minimum teacher qualification in Taiwan is higher than in the USA and Australia.

Taiwan has national standards for several aspects of preschools, but it needs more coordination between the central government and the local government in policy-making and execution so that the local delivery of ECEC to varied areas is appropriate to local community needs. This issue may best be resolved by giving more authorization to local governments, which better understand local conditions and needs. Australia has a flexible fee subsidies policy which could be a reference point for Taiwan. In the USA, some states have already included kindergarten in compulsory education, and this is now an objective for the Taiwanese government.

For preschools, Taiwan has national standards on licensing regulations, regulations, curriculum, teacher education and qualifications, staff: child ratios, and group size, but the USA and Australia do not have national standards for these factors. Quality

evaluation is the responsibility of local government in Taiwan, while USA has no national standards, and States and Territories are responsible for monitoring schools in Australia. Taiwan is rather a small, homogeneous country, so national standards are probably appropriate for the whole country. The USA and Australia have large areas, and local factors in each state may be quite different, so a system in which the states set standards may more appropriate.

In terms of evaluation, no national standard exists in USA, and the National Quality Assurance system is performed in Australia. In Taiwan, local governments are responsible for evaluation of the preschools, and due to time constraints, most evaluations focus on paperwork and fulfillment of regulations. There is insufficient time to observe interactions between children and teachers (Lin, 2011). After evaluation, most deficiencies in ECEC quality are not followed up to ensure they are corrected (Lin, 2011). Making evaluations effective involves (1) ensuring a flexible time schedule for evaluations; (2) ensuring that evaluations match the specific situation of the kindergarten; and (3) following up the evaluation results (Chang, 2005). There is room for improvement in the Taiwanese system to make evaluations more effective in their impact on ECEC quality. It may be considered potentially beneficial if regulatory personnel facilitate as well as monitor quality.

With regard to fee subsidy policies, Australia has provided subsidies to eligible families in the form of Childcare Assistance (CA) and the Childcare Rebate (CR); the USA has the more comprehensive Head Start Program to increase the school readiness of children in low income families from birth to age. The Taiwan government has established the Underprivileged Children Head Start Program for five



year-olds, Free tuition for five year-old children policies, and tax rebates of NT\$ 25000 (US\$833) for each child under five (From 2013). The burden of ECEC on families, however, is still high enough to cause anxiety to parents. This may be one reason for the low fertility rate in Taiwan. The Taiwanese government might learn from the USA to provide more comprehensive subsidy policies for preschool children aged two to five for low income families.

Table 2.14

*Comparisons of the Preschool Regulatory Framework in Taiwan, Australia, and the USA*

Country Item	Taiwan	Australia	USA
Authority	MOE (kindergarten) MOI (nursery) MOE (preschool in CECA after 2011)	States and Territories set policy, funding and priorities	States
Licensing regulation	National standard	Regulation by states	Regulation by states
Regulation	ECEC regulation	Regulatory requirements differ in each State and Territory in terms of both content and the types of services regulated.	Regulation by states
Child Age	2-6	3-5	Preschool 3-5 Kindergarten 5-6
Curriculum	No national standard	No national standard states and territories standard	Regulation by states
Quality Evaluation	Local government perform evaluations of preschools in two stages: First stage (Fundamental Evaluation every 1 to 3 years) Second stage (Professional Evaluation every 3 to 5 years)	National Quality Assurance system (QIAS) States and Territories are monitoring schools (every 2.5 years).	No national standard

Fee Subsidy Policy	Underprivileged Children Head Start Program for five year-olds.  Free tuition for five year-old children  Tax rebates NT 25000 for each child under 5 (From 2013)	Preschool attendance is subsidized by the States and Territories by direct funding of services or subsidies to eligible families in the form of Childcare Assistance (CA) and Childcare Rebate (CR).	Head Start Program for birth to age five
Teacher Qualification	National standards	State and territory standards	State standards
Teacher Education	National standards for public preschools	State regulation	State regulation
Teacher Salary	The salary of private preschool teachers is much lower than public preschool teachers	The salary of preschool teachers is much lower than the average wage	The salary of preschool teachers is much lower than kindergarten and the average wage
Staff: Child Ratios	1:15 (3 to 5-year-olds) 1:8 (2-year-old)	State standards	State standards
Group Size	30	State standards	State standards

## 2.6 Career Opportunities in ECEC in Taiwan

Career opportunity is closely related to career development, training and efficacy. Preschool teachers can move up the career ladder from assistant teacher, teacher, head teacher to director of the preschool as they fulfill the requirements of training and qualifications. Career opportunity can be defined as the opportunity to achieve career success, which in turn can be defined in terms of the positive psychological and work-related outcomes accumulated as a result of one's work experiences (Judge, 2007; Seibert, Crant, & Kraimer, 1999).

### 2.6.1 Fertility Rate and Employment in the Preschool Profession

An important factor influencing career opportunity in Taiwanese ECEC is the

declining fertility rate. Table 2.15 (Appendix A1) shows total fertility rates in OECD countries. While average OECD fertility rates increased from 2000 to 2010, Taiwanese fertility rates have decreased in recent years. The total fertility rate for Taiwan in 1997 was 1.77, but only 1.07 in 2011 (Department of Statistics MOI, 2012), approximately half the replacement rate. This has a serious impact on the demand for ECEC. In addition to their broader social and economic ramifications, falling fertility rates are likely to have a negative impact on the preschool profession by decreasing employment opportunities and increasing employment insecurity.

Most employment opportunities for people in Taiwanese preschools are in three areas: preschool teachers; teacher assistants; and ECEC workers. A limited number of job opportunities exist for managers, office, and administrative support workers. Taiwanese preschools provide over 16,904 teacher jobs annually, and most teachers are female (MOE, 2010a). They work in both the public and private sector, in kindergartens and nurseries. The 104 Job Bank (2007) showed that only 7 percent of graduates from ECEC departments of universities could get jobs in ECEC industry over the period of six months in Taiwan. For new graduates, it continues to be quite difficult to find a job in a preschool. Whilst the number of jobs may have decreased as a consequence of fertility changes, the entry into the workforce of many Taiwanese women may mean that more families will need to access ECEC. A decline in fertility rates has meant that many ECEC departments of universities find it difficult to recruit students and have had to decrease classes. Therefore, the current state of the Taiwanese ECEC industry is a challenging context in which to improve quality and career options.

The demand for preschool teachers is declining continuously in Taiwan, but the situation is quite different in Australia and the USA. In Australia, the demand for preschool is likely to increase due to the increase in the population of four year-olds. Furthermore, Australia has its own problem attracting and retaining quality staff in ECEC. Thus, Australia is experiencing a shortage of qualified teachers across education sectors. In the USA, the number of three and four-year-olds enrolled in state pre-K programs increased in twenty states and decreased in nine states in the year 2008-2009 (Epstein, Friedman, Sansanelli, & Hustedt, 2009). This has caused an increase in the demand for Pre-K teachers. The U.S. Bureau of Labor Statistics (2009) predicts that the number of preschool and kindergarten teachers will increase by 17.84 percent by 2018 (see Table 2.16).

Table 2.16  
*Employment by Occupation in 2008 and Projected for 2018*

Item	2008	2018	2008	2018	2008-18 increase by percent
Preschool and kindergarten teachers	636.8	750.4	0.42	0.45	17.84
Preschool teachers	457.2	543.9	0.30	0.32	18.95
Kindergarten teachers	179.5	206.5	0.11	0.12	15.03

Source: Adapted from U.S. Bureau of Labor Statistics, 2009. (Numbers in thousands)

It is interesting to compare the trends in the employment opportunities for preschool teachers in Taiwan, Australia and the USA. Taiwan may be experiencing an over-supply of preschool teachers with a shrinking child population, but in many schools,

the quality of staff qualifications, knowledge and skills remains inconsistent. The turnover rate of preschool teachers in Taiwan is very high due to low pay, high workload, and difficulty in finding time for in-service training or degree courses. Australia also experiences staff retention difficulties with reports that qualified graduates frequently seek to leave the ECEC sector for more remunerative primary school employment (Bretherton 2010; Watson, 2006). It is a challenge to address the problems in providing and assuring ECEC quality and positive career opportunities in ECEC provision in most countries, but Taiwan's declining fertility rate poses a clear threat to career options and invites a sector-wide consideration of how qualified Taiwanese ECEC staff can be attracted, developed, remunerated and retained to ensure quality ECEC, and rewarding careers in the sector.

### **2.6.2 Teachers' Pay and Benefits**

Several researchers report on the low pay and poor benefits in preschool employment (Chen, 2009; Jang, 2007). Preschool teachers worldwide are poorly paid, usually lower than the median salary (Chen & Gau, 2011; Whitebook, 2002; Whitebook, Howes, & Phillips, 1998). These low salaries cause considerable teacher dissatisfaction with their career (Bacolod, 2007; Chen & Gau, 2011). The average salary for preschool teachers in Taiwan is NT\$25,716 (1 U.S. dollar = 30 NT) per month, while the average salary is NT\$40,744 (Directorate General of Budget, Accounting and Statistics, Executive Yuan, 2010). The salary of preschool teachers is therefore much lower than the average wage. This salary compares with that in Australia and the USA as shown in Table 2.17 (AC People, 2010; General of Budget, Accounting and Statistics, Executive Yuan, Taiwan, 2010; U.S. Bureau of Labor Statistics, 2010).

Table 2.17

*Comparisons on the Salary of the ECEC Workers and Preschool Teachers in Three Countries*

Country Item	Taiwan (US dollars)	Australia (US dollars)	United States (US dollars)
Mean annual salary  (1US dollars = 30NT; 1US dollars = 1AUD)	\$10,286 (preschool teacher)	\$39,000 (preschool teacher)  \$25,948 (ECEC worker)	\$51,380 (kindergarten teacher)  \$25,700 (preschool teacher)  \$1,9300 (ECEC worker)

Source: Adapted from Directorate General of Budget, Accounting and Statistics, Executive Yuan, Taiwan, 2010; AC people, 2010; U.S. Bureau of Labor Statistics, 2010.

The wages of preschool teachers in Taiwan are much lower than that of their Australian and American equivalents. In Australia, the weekly salary of preschool teachers is \$750 (AUD), and of ECEC workers is \$499, compared to the \$700 earned by enrolled nurses (AC people, 2010). In the U.S., the mean annual wages for kindergarten teachers, preschool teachers, and ECEC workers in 2009 were \$51,380 (U.S. dollars), \$25,700, and \$19,300 (U.S. Bureau of Labor Statistics, 2010). These wages are lower than that of registered nurses, whose annual salary is \$64,690. Table 2.18 shows that the salary of teachers in ECEC centers and preschools is lower than teachers in primary schools in Australia although the gap between these cohorts is least apparent in the Australian sector.

Despite the prevalence of women in the workforce and the Women's Rights movements of the twentieth century, women continue to be paid less than men for the same work across countries and industries. Since women's work, often tightly

associated with caring for children, has traditionally been devalued in terms of market commodities, ECEC work attracts many women but offers limited financial reward, particularly in Taiwan. Getz (2009) found that median women's earnings were 78.2 percent of men's earnings in 2009 (\$35,549 US dollars per annum for women compared \$45,485 for men). Thus, gender discrimination still exists in the work environment in the USA, Australia and Taiwan. In the interest of equity as well as quality, Taiwanese preschool teacher remuneration and entitlements warrant review. ECEC is also less attractive work because it has been uncredentialed for a long time (Ackerman, 2006). Ackerman (2006) suggests that the low wages of ECEC staff are due to most ECEC staff being female, and indeed 99 percent of kindergarten teachers in 2011 school year are females in Taiwan (MOE, 2010a).

Table 2.18

*Teachers' Salaries in Primary Schools, Preschools and ECEC Centers*

State	Level of training (if applicable)	Early Childhood Teacher				Primary School Teacher	
		In Child Care Centre		In Preschool		Beginning	End
		Beginning	End	Beginning	End		
NSW	3 yr trained	\$41,329	\$61,100	\$39,742	\$55,010	\$45,558	\$75,352
	4 yr trained	\$43,946	\$64,557	\$42,256	\$62,120	\$50,222	\$75,352
VIC	3 yr trained	\$38,502	\$52,863	\$38,502	\$52,863	-	-
	4 yr trained	\$40,587	\$52,863	\$40,587	\$52,863	\$51,184	\$75,500
QLD	3 yr trained	-	-	-	-	-	-
	4 yr trained	\$36,196	\$47,971	\$36,196	\$47,971	\$43,201	\$68,839
WA	4 yr trained	\$36,387	\$51,169	\$37,009	\$77,744	\$37,009	\$77,744
SA	3 yr trained	-	-	-	-	-	-
	4 yr trained	\$39,272	\$42,369	\$38,522	\$48,666	\$38,522	\$48,666
TAS	3/4 yr trained	\$36,899	\$40,035	\$48,638	\$71,133	\$48,638	\$71,133
	5 yr trained	-	-	\$51,139	\$71,133	\$51,139	\$71,133
ACT	3 yr trained	\$36,872	\$43,708	\$48,219	\$74,279	\$48,219	\$74,279
	4 yr trained	\$38,041	\$48,602	\$52,128	\$74,279	\$52,128	\$74,279
NT	3/4 yr trained	\$47,789	\$53,872	\$39,459	\$70,047	\$39,459	\$70,047

Source: Dowling & O'Malley, 2009.

The Taiwanese government could address the most critical problems in the ECEC sector through adequate and standardized policies on staff remuneration and benefits, which would in turn enhance career opportunities in preschools. Such a reform would

help decrease teacher turnover and attract more men to the ECEC industry, improving the gender balance in ECEC and children's learning experiences. Policies on minimum qualifications combined with policies on minimum remuneration and benefits could also assist transition under-qualified staff out of a shrinking ECEC sector in Taiwan and enhance the quality of care available.

### **2.6.3 Working Environment**

The working environment provided for teachers has been found to affect retention (Chen, 2009; Hung, 2012; Whitebook et al., 2009). Whitebook et al. (2009, p. 5) define teachers' working environment as including:

the number and professional status of adults working in a given classroom, class size, adult-child ratios, compensation (including pay and benefits), whether or not teachers are unionized, teacher turnover and retention, and the administrative leadership of a school or program.

The term "working environment" may be used interchangeably with "working conditions", or "working environment conditions". This section considers working environment primarily in terms of workload, working hours, overtime, leave entitlements, and union options. Other aspects of the work environment, such as group size, adult-child ratios, teachers' pay and benefits, teacher turnover, retention, and principals' leadership, are discussed in later sections. Macdonald (1999, p. 844) proposes several strategies for improving working conditions:

- repairing and upgrading school buildings and teachers' accommodation,
- increased teacher responsibility for educational decisions,
- reducing class sizes,
- increased parental and community support for schools,
- childcare provision, collegial relationships amongst teacher and with administrators,
- counseling and medical care.

In Taiwan, the teacher's workload in private preschools is usually much higher than in



public preschools. By the statutory requirement of Taiwan's Labor Standards Act (LSA), staff should not work more than eight hours per day. Yet it is common in Taiwanese private preschools to use a "responsibility system" to avoid overtime payments. Teachers cannot go off duty until all the children have been picked up by parents (Chen, 2009). They work approximately ten hours per day, substantially more than the normal eight working hours. In addition, some preschools do not adequately provide for their staff to take leave (Chen, 2009). Such sub-standard practices contribute to staff burnout and attrition but also have implications for the quality of ECEC when staff are overworked (Feng & Sass, 2012).

#### **2.6.4 Teachers' Professional Learning**

Researchers have found that many preschool teachers in Taiwan are under-trained or rarely trained, and lack knowledge of children's nutrition, health and safety (Chang & Cheng, 2002; Hung et al., 2008; Sung, 2007). Several researchers found teachers that continually developed their professional learning could improve children learning outcomes (Carte & Fewster, 2013; Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). It is thus necessary to provide preschool teachers with relevant professional learning and development, so they can retain strong skills, current knowledge and good practice (Chapman, 2014; Irvine, & Price, 2014). The researchers advocated the concept of a professional learning community of teachers shared personal practices, values and visions with collective learning to improve teacher quality (Mitchell & Sackney, 2011; Zhao, 2013). Tout, Zaslow, and Berry (2006) proposed five forms of professional learning and development: (a) formal education; (b) credentialing; (c) specialized on-the-job in-service training; (d) coaching and/or consultative interactions; and (e) communities of practice.

Training can be either pre-service or in-service. Pre-service training can be further divided into specific job related training and non-job-specific training within formal education (Markowitsch & Plaimauer, 2009). Pre-service training in the ECEC industry prepares people with no prior experience for the preschool setting. In-service training allows preschool teachers to study task-related skills (Burchinal et al., 2002; Queeney, 2002).

A research study indicated that many in-service teachers could not complete training or degree courses in college or university because their work schedules were too inflexible to accommodate the course schedules (TALIS, 2008). A contemporary option for these in-service preschool teachers is to take on-line courses available in many colleges or universities. In the United States and Australia, many universities and colleges offer distance learning courses. This provides flexible options for preschool teachers to do in-service training or study for a degree. Only a few universities in Taiwan, however, offer distance learning courses, and only 1/3 of total credits can be obtained from such courses according to Taiwanese MOE regulations. Further, while the Taiwanese government provides incentives to public preschools to encourage their staff to take in-service training, it does not do the same for private preschools, so private preschools do not usually allow teachers to take in-service training during workdays to avoid extra staff costs.

As so many Taiwanese families depend on private providers of ECEC and as there are many systemic inequities privileging the public schools in the Taiwanese ECEC

sector, pressures on private providers are contributing to quality compromises that affect children, staff, parents and administrators. A government decision to extend the incentive scheme for in-service training to private preschools would be one possible strategy to address these variations in quality apparent between public and private preschools in Taiwanese ECEC and promote improved staff retention and expertise. Ensuring adequate staff's professional learning in Taiwan will require coordination between authorities at the national and local level. The system of allocation of roles and responsibilities for the professional development of teachers between state and local institutions in the USA (see Table 2.19) is a useful model for how this might be achieved (GAO, 2009).

Table 2.19  
*Roles and Responsibilities of State and Local Education Institutions*

Education activity	State educational agency	State agency for higher education <sup>b</sup>	Institution of higher education	School district	School
Legal and administrative responsibility for state education system	•	•		•	
Recruitment	•		•	•	•
Hiring				•	
Compensation				•	
Retention	•			•	•
Certification	•				
Classroom teacher training	•	•	•	•	•
Teacher assignments				•	•
Teacher evaluations					•
Alternative routes to certification	•		•	•	
Traditional routes to certification	•		•		
Mentoring or induction	•			•	•
Academic program approval at public institutions of higher education		•			

Source: GAO, 2009.

### **2.6.5 Teacher Retention, Attrition, and Turnover**

The attrition rate describes the rate at which teachers leave the teaching profession altogether, and this includes retirement. “Turnover” rate is the ratio of those teachers who leave their current job compared to the average number of teachers currently employed. Therefore, attrition is part of turnover. High turnover and attrition rates create an inexperienced staff pool and many extra expenses for schools. Frequent teacher changes caused by high turnover can also retard the development of children particularly for young children who become readily attached, and may cause the quality of the profession to decline (Bacolod, 2007; Whitebook, 2002).

One cause of teacher turnover is dissatisfaction with career opportunities (Daan, Rolf, & Susana, 2007; Hung, 2012; Feng, 2010). High teacher attrition and turnover rates are also frequently caused by working in poor quality environments and receiving low wages (Chen & Gau, 2011; Hung, 2012; Whitebook et al., 2009). Macdonald (1999) considers stress as a major factor in teacher attrition. Kyriacou (1987) defines teacher’s stress as the experiences of depression, frustration, anxiety, anger, and tension resulting from educational work. Research shows that attrition and turnover rates are higher in disadvantaged areas (OECD, 2005). Governments may need to introduce incentive measures or resources to attract and retain teachers in disadvantaged or remote areas to improve the quality of ECEC available.

Taiwanese preschool teachers have a heavy workload, poor working conditions, and low salaries, so many of them do not consider preschool teaching to be a good career (Chen, 2009; Chen & Gau, 2011; Jang, 2007). This low estimation of ECEC careers results in many unqualified teachers coming into the preschool system, because many

qualified teachers no longer want to teach. Therefore, the retention of qualified teachers is a critical issue in the Taiwanese ECEC industry. Private preschools may need to consider how they can provide better salaries and benefits, good working conditions, reasonable workloads and in-service training to attract and retain quality staff.

Turnover itself is an indicator of dissatisfaction with ECEC work and perceptions of poor career potential within the industry. There are three phases of this turnover: (1) graduates from ECEC courses do not work in the ECEC industry; (2) they quit preschool work due to low pay or high workloads; (3) they quit preschool due to marriage or family responsibilities (see Figure 2.11). The disruption that such decisions cause to preschools might be relieved if there were more family-friendly policies regarding matters such as childbirth leave and benefits and convenient childcare places for the children of preschool staff. Phases 2 and 3 of turnover can occur any time in a staff's career if the conditions for continuing to work are not satisfied. Thus, improving remuneration and working conditions are proposed in the literature to decrease staff attrition and turnover. Several researchers propose higher salary, allowances, salary supplements, better working conditions, and career opportunities to encourage staff retention (Berry, Smylie & Fuller, 2008; Chen & Gau, 2011; Hanushek & Rivkin, 2007; Macdonald, 1999). In addressing working conditions, the option of a shorter working day is important for women (Berry, Smylie & Fuller, 2008; Hanushek & Rivkin, 2007). Improving the working conditions of Taiwanese ECEC staff, particularly in private preschools, appears to be a necessary objective to addressing quality as well as career opportunities in the sector.

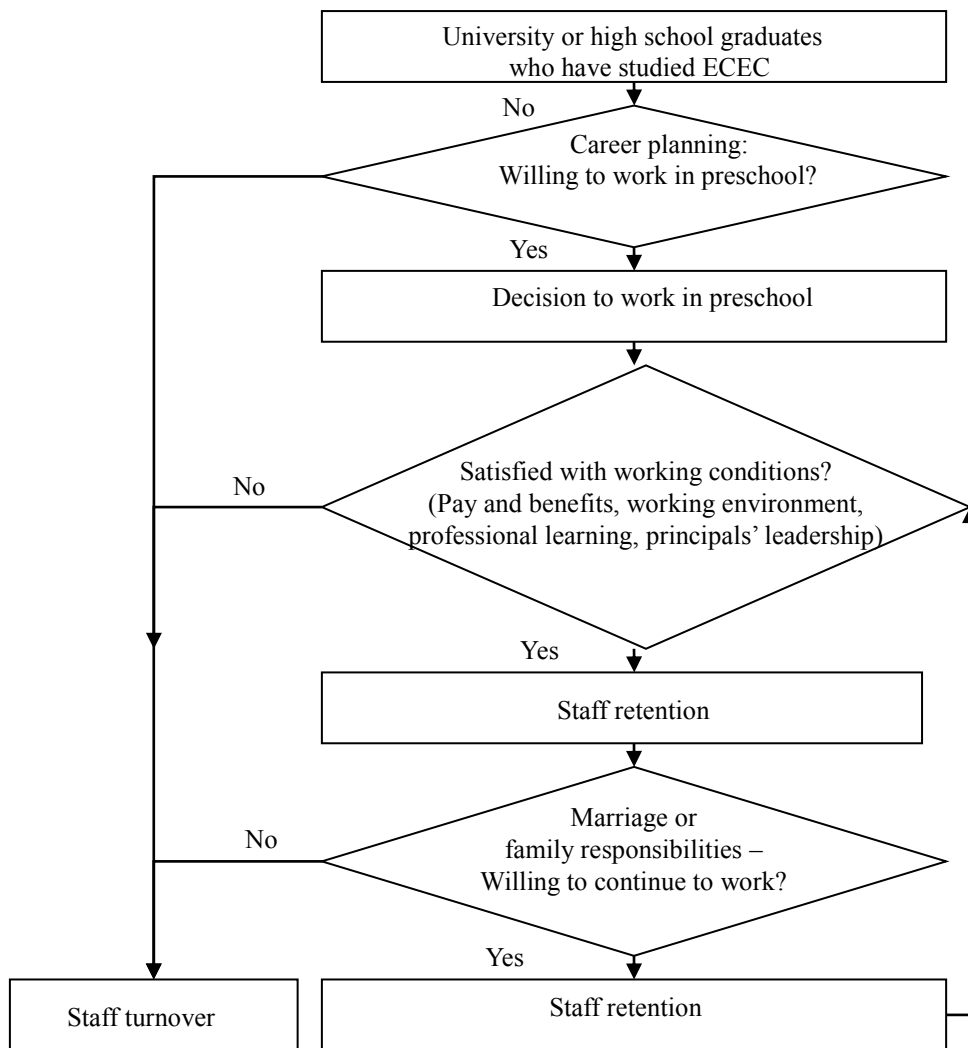
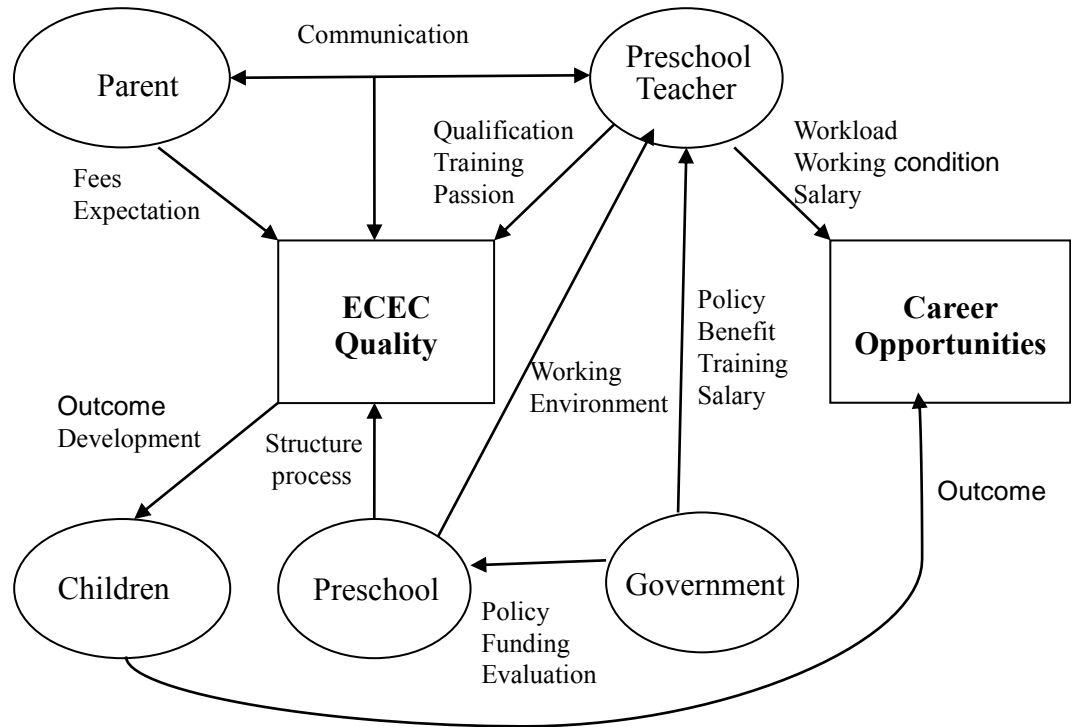


Figure 2.11. Three phases of staff turnover.

## 2.7 The Relationship between ECEC Quality and Career Opportunities

Based on the review of the literature on ECEC quality and career opportunities in this chapter so far, the relationships between ECEC quality and career opportunities in preschool among stakeholders of preschool principals, teachers, parents, children, and government are illustrated in Figure 2.12. Parents may express their judgments on ECEC quality by choosing a preschool for their children. The government can make use of policy, evaluation and funding to the ECEC industry to improve ECEC quality. In addition, the government can improve policy and implementation regarding

benefits, training and salary to enhance staff's career opportunities (Duan, 2011) and thereby indirectly enhance quality.



*Figure 2.12.* The relationship between ECEC quality and career opportunities in preschool.

Staff's workload, working conditions and salary can influence the quality of the service they provide and their decision to remain in the job or change to another job (Chen, 2009; Chen & Gau, 2011; Cryer et al., 1999). The qualifications, training and commitment of preschool teachers are also related to the quality of service. In turn, ECEC quality can influence the life outcomes and development of the child (Chen & Gau, 2008; Espinosa, 2002), and the development outcomes of children can provide satisfaction to preschool staff and inspire them to continue in the career of ECEC. A good preschool environment can also provide career opportunities for staff giving them better motivation to work (Kyriacou, 1987). It can also encourage staff to

support their colleagues and be more willing to undertake career development and training to improve their competence. This can make a great difference to the quality of ECEC. In addition, ECEC quality can be improved through close communication between parents and preschool teachers and the involvement of parents as partners through the use of communication diaries, email, instant messaging, telephone, and a website message boards.

## **2.8 Conclusion**

Katz's (1993) categories of top-down, inside-out, and outside-in perspectives provide a useful framework to evaluate and analyze the quality of service in preschools. This chapter has explored the factors influencing ECEC quality and career opportunities in Taiwanese preschools and made comparisons between preschools in Taiwan, Australia and the USA to identify areas that may need improvement. Cryer et al.'s (1999) model of Spheres of Influence on ECEC Programs has been used to analyze the factors influencing quality of preschool service in preschools in each sphere. It has also discussed the relationships between ECEC quality and career opportunities in preschool among stakeholders. The following chapter describes and explains the research methodology adopted for this study.



## **Chapter Three**

### **Research Methodology**

#### **3.1 Introduction to the Research Design**

This study primarily explores factors influencing ECEC quality and career opportunities in Taiwanese preschools and the relationship of career opportunities to ECEC quality. It endeavors to identify strategies for improving ECEC quality and career opportunities in the preschool profession in Taiwan. Katz's (1993) theorization of *top-down*, *inside-out*, and *outside-in* perspectives to explore the range of stakeholder perceptions on ECEC quality and career opportunities. Spheres of Influence model (Cryer et al., 1999) was applied in a review of the literature on ECEC in Taiwan, in order to identify key issues in the sector and inform decisions about appropriate further research. Decisions on which participants should be included in the research were guided by this model. A range of researchers of ECEC quality (Chen & Gau, 2011; Espinosa, 2002; Karvelas, 2012; NAEYC, 2008; Tseng's, 2010), and career opportunity (Chen, 2009; Chen & Gau, 2011; GAO, 2009; Hung, 2012; Tout, Zaslow, & Berry, 2006; Whitebook et al., 2009) provide useful guidance for data analysis.

The researcher interviewed parents (outside-in perceptions), teachers and principals (inside-out perceptions) from three types of preschools as well as evaluators and a government official (top-down perceptions) to evaluate ECEC quality and career opportunities in Taiwanese preschools. Due to the cognitive and linguistic immaturity of the children involved in ECEC, this study did not seek to incorporate child views of their ECEC experience, but the inclusion of parents in interviews allowed for a

second-hand account of the child's experience from a non-professional "client" perspective. Together, these perspectives define five categories of participants: teachers, parents, principals, evaluators and a government official (GO).

The study was conducted as a qualitative case study. The qualitative approach was deemed appropriate because of its suitability for collecting and analyzing data that explores the values, beliefs, and subjective judgments of participants in their social and experiential context (Creswell, 2008; Robson, 2011; Shank, 2002; Yin, 2009) and thus for deeply exploring stakeholders' views and perceptions regarding ECEC. The study began with the collection of qualitative data in the form of focus group and individual interviews, which were conducted in October 2011 with 39 participants in 13 sessions. Chapter Four presents the findings from the research established through collection, coding, and analysis of the qualitative data.

This chapter describes and justifies the methodology of this research project. It outlines the case study methodology that is adopted in this research project as well as the process of collecting and analyzing data. In addition, this chapter explores ethical considerations in the data collection process.

### **3.2. The Aim of the Research and Research Questions**

The research aimed to expand current understanding of ECEC quality and career opportunities for preschool teachers in Taiwan. It employed the case study approach to frame and analyze the factors affecting quality career opportunities in private preschools under the impact of severely low fertility rates in Taiwan.

The research questions aim to identify and assess the factors influencing ECEC quality and career opportunities, explore the relationship between ECEC quality and career opportunities, and identify strategies for improving the sector in Taiwan in relation to these factors. Specifically, the research questions are as follows:

- (1) What are the key factors influencing ECEC quality in Taiwanese preschools?
- (2) How might ECEC quality in preschools be improved?
- (3) What are the key factors influencing career opportunities in Taiwanese preschools?
- (4) How might career opportunities be improved for ECEC staff?
- (5) What is the relationship between ECEC quality and staff's career opportunities?

### **3.3. Methodology of this Research: Qualitative Case Study**

This research concerns both ECEC quality and career opportunities in Taiwanese preschools. In designing this study, it was critical to choose an appropriate methodology so that the collection of data reflects the perspectives of stakeholders in Taiwanese preschools. The research methodology chosen involved the selection of three representative ECEC centers to conduct an in-depth case study on the views of the stakeholders including staff, parents, evaluators and a GO regarding ECEC quality and career opportunities. In order to explore the stakeholders' views on key factors in ECEC quality and career opportunities and how these might be improved, it was critical that the data collection method provide detailed and comprehensive information.

Comparisons of research methods in the literature about ECEC guided the selection of the research design. Silverman (2000) observes that the choice of research design depends on the nature of the research. While quantitative methods can obtain precise

answers to highly focused research questions, qualitative research can capture the experiences of participants, as Gay and Airasan (2003) point out. Qualitative research may be defined as “empirical inquiry into meaning” (Shank, 2002, p.5). It investigates how people make sense of their experience. Qualitative research investigates the why and how of decision-making, usually involving individuals’ interpretation and making sense of people’s behaviors (Bryman, 2004; Denzin & Lincoln, 2005). Jarvie (2012, p. 36) identifies five features of qualitative research:

1. Features an in depth analysis of an issue, event, entity, or process [ . . . ]
2. Is an attempt to explain a highly complex and/or dynamic issue or process that is unsuited to experimental or quantitative analysis.
3. Includes a record of the views and behaviors of the players – it studies the world from the perspective of the participating individual.
4. Cuts across disciplines, fields and subject matter.
5. Uses a range of methods in one study.

The first four of these features are particularly relevant to the research topic, which is complex and multifaceted and involves a wide range of stakeholders. Chapter Two of this thesis presented extensive statistical information pertaining to ECEC in Taiwan as well as internationally suggesting that quantitative research is prevalent in the sector. There is however, little in the literature which presents qualitative, personalized accounts of the Taiwanese ECEC experience from the ranging perspectives of participants. Such experiential data can provide an enriched understanding of the sector and requires a qualitative approach. As this study aims to capture and understand the stakeholders’ perceptions of ECEC quality and career opportunities, a qualitative approach was adopted.

This research therefore employs a qualitative approach to data collection and interpretive methods of data analysis, since such an approach allowed the researcher

to interact with participants and explore their views regarding ECEC quality and career opportunities in the context of low fertility and the implementation of CECA. This research employs a case study framework, a key technique within qualitative research, to organize the investigation. The case study method was chosen rather than a field study or an ethnographic approach because the latter approaches tend to be very time-consuming (Robson, 2011; Tedlock, 2003) and an exhaustive exploration of the sector was not possible within the confines of a doctoral study. Grounded theory was not employed because this research was not concerned with gathering data to develop theory. Framing the Taiwanese sector as a case study and nominating several schools from public and private operations as sample sub-category cases was deemed the most appropriate approach given the constraints and objectives of the research.

### **3.4 The Case Study Methodology**

The case study method can be utilized for an in-depth exploration of a number of data sources to gain a more comprehensive picture of the issues (Yin, 2009). Case studies use multiple data collection sources to identify problems and obtain suggestions to solve a particular problem (Hamel, 1993; Yin, 2009). A qualitative case study uses data collection to obtain in-depth information in context (Creswell, 2008; Yin, 2009). The case study involved an initial review of the literature which was reported in Chapter Two and which assisted the researcher to frame key issues and questions relevant to a better understanding of ECEC in Taiwan. Field research was then conducted in a variety of public and private preschools employing in-depth individual interviews and focus group sessions to build detailed and complex data about how parents, teachers and administrative stakeholders view ECEC quality and career opportunities in the Taiwanese preschool. In accordance with the case study method, a

comparatively small group of research participants was chosen, rather than a large scale sample as may be appropriate for a survey, to allow for a more in-depth investigation.

This focused qualitative research approach complements the government's larger scale approach which produces generalized data on the number of children, teachers, and preschools in ECEC and other quantifiable factors characterizing the sector. Three ECEC centers were chosen as subjects for case studies to investigate the typical deep experience of parents, teachers and administrators in ECEC. A small number of research sites allowed for more detailed questions of the participants and probing for detailed and comprehensive experiential data that could promote a deep understanding of the realities of participants in the context of ECEC. As a consequence of the limited number of schools and interviewees, the research results may not be sufficiently generalizable for firm conclusions to be drawn about the Taiwanese ECEC sector in its entirety, nor ECEC quality and career opportunity as it exists across the region, but they may allow the identification of important problems in ECEC in Taiwan and possible solutions for stakeholders.

### **3.5 Data Collection Methods**

Data collection methods for this research consisted of semi-structured focus group and individual interviews with a suite of pre-set questions that allow open-ended answers and facility for further comment, a strategy that provides participants with opportunities to freely express their views on any topic associated with the study (Creswell, 2008). The participants consisted of parents, teachers, and principals from three types of preschools and three evaluators who have been authorized by local

government to evaluate the quality of ECEC across a range of preschools. In addition, a government officer in charge of ECEC evaluation was also interviewed to understand the issues from the perspective of government. Parents were chosen since they are the customers and make decisions on ECEC; teachers can have a great influence on ECEC quality and also understand career opportunity issues. Principals understand management techniques, social trends and policies can impact on ECEC quality.

In order to have a better understanding of what influences ECEC quality and what factors affect career opportunities for preschool teachers in Taiwan, this research studied three types of preschools located in the southern region of Taiwan, including one public nursery (PN), one privatized public nursery (PPN) which was built by government but leased to private management, and one private kindergarten.

There is no substantive difference between nurseries and kindergartens, because children are in the same age range, but there has been a tradition of employing ECEC staff with higher qualifications in kindergartens. Therefore, the CECA implemented in January 2012 is likely to cause transitional challenges for nursery centers. It also has an impact on existing kindergartens, with tightened requirements such as improved staff-child ratios for children age two to three. As the CECA legislation was implemented during the process of this research, the implications for preschools as a result of this change was explored by asking principals and evaluators “What impact will the new MOE decisions have on ECEC centers?”

Two focus group sessions were held, a teacher session and a parent session, in each of the three preschools. The teacher's focus group provided views from preschool professionals, and the parent's focus group provided the customers' views. The individual interviews were conducted with principals, evaluators, and a GO. Principals were able to comment on outcomes of government evaluations of quality, for example, whilst evaluators could express their views on the evaluation criteria of quality, and the GO provided the government perspective. Parents and teachers were not individually interviewed, since they could sufficiently express their views in focus group discussion and are very busy with work and family.

Katz's (1993) theory of organizational viewpoints (outside-in, inside-out, top-down) was used to classify the perceptions of the various groups. The researcher interviewed parents (outside-in perceptions) in focus groups, teachers (inside-out perceptions) in focus groups, and principals (top-down perceptions) in individual interviews in three preschools to provide a comprehensive, experience-based understanding of ECEC quality and career opportunities in the preschool profession in Taiwan.

An overview of the selected preschools, parents, teachers and principals is shown in Table 3.1. Each focus group and interview was conducted and tape-recorded in Mandarin, the official language of Taiwan, with the participants' permission. The interviews were transcribed in Chinese after the completion of the focus group interviews or individual interviews. The Chinese transcripts were then translated into English and verified by a professional translator to facilitate analysis and reporting for doctoral submission.



Table 3.1  
*Research Sample and Activities*

Sample Activity	Public Nursery	Privatized Public Nursery	Private Kindergarten	Evaluators	Government Official
Focus group (teacher session)	5 teachers	6 teachers	5 teachers	N/A	N/A
Focus group (parent session)	5 parents	5 parents	6 parents	N/A	N/A
Individual interview	1 principal	1 principal	1 principal	3 evaluators	1 government official

### 3.5.1 Participant Selection

Only parents whose children had been attending the preschool for more than two months and teachers with at least one year of experience in preschool were selected for participation in the study by invitation. Three principal participants were chosen, all of whom had at least one year of experience, which ensured an understanding of the issues of policy and management in preschool provision. The criterion for the selection of evaluators was experience of participation in preschool evaluations of more than two cycles.

The evaluators were interviewed in order to understand the issues involved in evaluations and the criteria for demonstrating ECEC quality from the evaluators' perspective. The GO provided information to clarify issues related to government policy and decisions on ECEC provision and quality. Invitations for voluntary participation were offered to potential participants on a convenience basis, and as the researcher has a history of employment in the sector, networks of relevant professionals were identified through this experience. All participants were aged over 20 years. The participants were provided with a full letter of information (see Appendix B2) explaining the objectives and process of this research prior to agreeing

to be interviewed and their formal consent was received by the researcher. The background information of the participants is shown in Table 3.2.

Table 3.2  
*Background Information Regarding the Participants*

Participant categories	Participant	Gender	Age	Income level (NT dollar per month) 1US\$=30 NT	Education	Occupation	Qualification
Public nursery Individual interview	Principal	M	40-50	50000-60000	BA. (Private university ECEC department)	Education	Principal's certificate
Public nursery Teacher's Focus Group	Teacher 1	F	40-50	20000-30000	BA. (Private university ECEC department)	Education	Childcare certificate
	Teacher 2	F	30-40	20000	BA. (Private university ECEC department)	Education	Childcare certificate
	Teacher 3	F	40-50	30000-40000	B.A. (Public university ECEC department)	Education	Teacher's certificate
	Teacher 4	F	30-40	20000	BA. (Private university ECEC department)	Education	Childcare certificate
	Teacher 5	F	20-30	20000	B.A	Education	Teacher's certificate
Public nursery Parent's Focus Group	Parent 1	F	30-40	20000-30000	Two-year college with diploma	Business	
	Parent 2	F	20-30	20000-30000	B.A	Worker	
	Parent 3	F	30-40	40000-50000	B.A	Government employee	
	Parent 4	F	30-40	0	Two-year college with diploma	Housewife	

	Parent 5	F	30-40	0	B.A.	Housewife	
Privatized public nursery Individual interview	Principal	F	50-60	50000-60000	BA. (Private university ECEC department)	Education	Principal's certificate
Privatized public nursery Teacher's Focus Group	Teacher 1	F	30-40	20000-30000	BA. (Private university ECEC department)	Education	Childcare certificate
	Teacher 2	F	30-40	20000-30000	BA. (Private university ECEC department)	Education	Childcare certificate
	Teacher 3	F	40-50	20000-30000	BA. (Private university ECEC department)	Education	Childcare certificate
	Teacher 4	F	30-40	20000-30000	BA	Education	No certificate
	Teacher 5	F	30-40	20000-30000	BA	Education	Childcare certificate
	Teacher 6	F	20-30	20000-30000	BA. (Private university ECEC department)	Education	Childcare certificate
Privatized public nursery Parent's Focus Group	Parent 1	F	60-70	50000-60000	Two-year college with diploma	Small business owner	
	Parent 2	F	40-50	Over 60000	BA	Business	
	Parent 3	F	30-40	20000-30000	High school	Free	
	Parent 4	F	30-40	20000-30000	Vocational high school	Business	
	Parent 5	F	20-30	0	Two-year college with diploma	Housewife	
Private kindergarten Individual interview	Principal	F	50-60	50000-60000	Master	Education	Teacher's certificate
Private	Teacher 1	F	50-60	30000-	B.A. (Public	Education	Teacher's

kindergarten Teacher's Focus Group				40000	university ECEC department)		certificate
	Teacher 2	F	30-40	20000- 30000	BA. (Private university ECEC department)	Education	Teacher's certificate
	Teacher 3	F	20-30	20000- 30000	BA. (Private university ECEC department)	Education	Childcare certificate
	Teacher 4	F	30-40	20000- 30000	BA. (Private university ECEC department)	Education	Childcare certificate
	Teacher 5	F	20-30	20000- 30000	BA. (Private university ECEC department)	Education	Childcare certificate
Private kindergarten Parent's Focus Group	Parent 1	F	30-40	40000- 50000	Master	Business	
	Parent 2	F	30-40	30000- 40000	BA.	Business	
	Parent 3	M	30-40	50000- 60000	BA.	Worker	
	Parent 4	F	30-40	50000- 60000	BA	Housewife	
	Parent 5	F	30-40	Over 60000	Two-year college with diploma	Worker	
	Parent 6	M	30-40	40000- 50000	BA	Worker	
Evaluators Individual interview	Evaluator 1	F	40-50	Over 60000	Ed. D	Education	
	Evaluator 2	M	50-60	Over 60000	PhD	Education	
	Evaluator 3	F	50-60	Over 60000	Ed. D	Education	
Government official Individual interview	Government official	F	50-60	Over 60000	BA	Government Employee	

The demographic characteristics of the 39 participants in terms of gender, age, educational background, and salary are summarized in the following tables. There were 35 female (90%) participants but only 4 males (10%), as shown in Table 3.3. This reflects the ECEC situation in Taiwan. Most staff are female and most female parents take care of family ECEC issues. Most participants' ages (51.3%) were in the range 30-39 (Table 3.4), and most participants (69.2%) have bachelor's degrees (Table 3.5). The median salary range was 20000-30000 NT (667-1000 AUD), accounting for 38.5% of participants (Table 3.6).

Table 3.3  
*Genders of the Participants*

Gender	Number of Participants	Percent
Females	35	90
Males	4	10
Total	39	100

Table 3.4  
*Ages of the Participants*

Age	Number of Participants	Percent
20-29	6	15.4
30-39	20	51.3
40-49	6	15.4
50-59	6	15.4
60-69	1	2.6
Total	39	100

Table 3.5  
*Education Backgrounds of the Participants*

Education Backgrounds	Number of Participants	Percent
High school	2	5.1
Two-year college with diploma	5	12.8
BA	27	69.2
MA	2	5.1
Doctor	3	7.7
Total	39	100

Table 3.6  
*Salary of the Participants*

Salary (NT)	Number of Participants	Percent
0	3	7.7
0-20000	3	7.7
20000-30000	15	38.5
30000-40000	3	7.7
40000-50000	3	7.7
50000-60000	6	15.4
Over 60000	6	15.4
Total	39	100

\* 1 US Dollar = 30 NT Dollar, 1 AUD = 30 NT

### 3.5.2 Focus Groups

Focus groups are usually used in qualitative research method to obtain in-depth data and insights efficiently (Creswell, 2008). Focus group discussions can allow participants of similar backgrounds to contribute their perceptions, views and experiences. A semi-structured format was used for the focus groups – offering a

series of prepared questions to guide the discussion but also providing opportunity for freer conversation – to enable the interviewees to openly express their views, perceptions, values, and feelings without diverging too far from the research topic (Creswell, 2008).

The parents' focus groups focused on the parents' expectations and degree of satisfaction with the process quality and structural quality of the preschool. These focus group interviews were completed first so that the results could be used to inform the teachers' focus groups discussions. The teachers' focus groups enabled the researcher to gain an understanding of the teachers' perceptions of the issues of ECEC quality and career opportunities. The results of the focus group data together with the earlier analysis of the relevant literature were useful as a reference for individual interviews with principals, evaluators and government in the second phase of the study.

### ***Focus Groups Questions***

The focus group questions, the information sheet and the consent forms were sent to participants prior to their attending the focus groups. The focus groups were held for one and a half hours to two hours. The structured questions for teacher groups and parent groups are detailed in Table 3.7 and Table 3.8. Following these questions, interviewees were encouraged to raise any issues or add any further comments they felt were relevant. The identity of participants has been protected and the data obtained from the focus groups was processed confidentially.

Table 3.7

*Questions for Teachers (Focus Groups)*

Questions for Teachers	Related to Research Questions
1. What do you define as essential to high quality ECEC?	1. What are the key factors influencing ECEC quality in Taiwan?
2. What do you think of male teachers' service in preschool?	1. What are the key factors influencing ECEC quality in Taiwan?
3. How might ECEC quality be improved?	2. How might ECEC quality be improved?
4. Do you consider teaching in preschool to be a career? What career pathway do you see for yourself in ECEC? What are the reasons for high teacher turnover?	3. What are the key factors influencing career opportunities in the ECEC industry in Taiwan?
5. Do you think pre-service training is important for your work? What kind of university courses, pre-service training and in-service training is needed for your work?	3. What are the key factors influencing career opportunities in the ECEC industry in Taiwan?
6. Do you have time for training or continuing education?	3. What are the key factors influencing career opportunities in the ECEC industry in Taiwan?
7. How might career opportunities be improved for ECEC staff?	4. How might career opportunities be improved for ECEC staff?
8. How do teachers influence ECEC quality? How can teacher retention be improved?	5. What is the relationship between ECEC quality and career opportunities for ECEC staff?
9. What outcomes of government interventions and evaluations to enhance ECEC quality have occurred?	1. What are the key factors influencing ECEC quality in Taiwan?
10. What impact has the Childhood Education and Care Act had on ECEC quality and career opportunities?	1. What are the key factors influencing ECEC quality in Taiwan?
11. What impact do you think low fertility rates have on ECEC quality? How can they be improved?	1. What are the key factors influencing ECEC quality in Taiwan?



Table 3.8

*Questions for Parents (Focus Groups)*

Questions for Parents	Related to Research Questions
1. Why did you select this preschool? What kind of services do you expect from the preschool and teachers?	1. What are the key factors influencing the quality of ECEC service in Taiwan?
2. What do you think of male teachers' service in preschool?	1. What are the key factors influencing ECEC quality in Taiwan?
3. What could you do to support the preschool and the teachers in delivering high ECEC quality?	2. How might ECEC quality be improved?
4. What factors or working conditions do you think could influence a teacher in a preschool to persist in preschool teaching as a career?	3. What are the key factors influencing the career opportunities in ECEC industry in Taiwan?
5. How might career opportunities be improved for ECEC staff?	4. How might career opportunities be improved for ECEC staff?
6. How do teachers influence ECEC quality?	5. What is the relationship between ECEC quality and career opportunities for ECEC staff?
7. Do you think a stable teacher can provide better ECEC quality? How can teacher retention be improved?	1. What are the key factors influencing ECEC quality in Taiwan?
8. Do you get any support from government for ECEC?	1. What are the key factors influencing ECEC quality in Taiwan?
9. Are the results of government evaluations important in choosing a school?	1. What are the key factors influencing ECEC quality in Taiwan?
10. Do you know of the Childhood Education and Care Act? How do you think this law affects ECEC quality?	1. What are the key factors influencing ECEC quality in Taiwan?
11. What measures do you think can be taken to encourage families to have more children?	1. What are the key factors influencing ECEC quality in Taiwan?
12. How does access to ECEC impact on a family's decision to have children?	1. What are the key factors influencing ECEC quality in Taiwan?

**3.5.3 Individual Interviews**

The individual interviews were held at three preschools in Taiwan in October 2011. These interviews were able to provide important sources of information for this research. Semi-structured interviews were also selected for use in individual

interviews to allow interviewees to express their views sufficiently. The individual interview questions considered relevant literature to allow an exploration of more in-depth issues than in the focus group interviews.

### ***Interview Questions***

Interviews were held for about one hour to two hours. The semi-structured questions for principals, evaluators and the GO related to the research questions are listed in Table 3.9, Table 3.10, and Table 3.11 respectively.

Table 3.9  
*Questions for Principals (Individual Interviews)*

Questions for Principals	Related to Research Questions
1. What do you define as essential to high quality ECEC?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
2. What impact do you think low fertility rates have on ECEC quality? How can they be improved?	1. What are the key factors influencing ECEC quality in Taiwanese preschools? 2. How might ECEC quality in preschools be improved?
3. What do you think of male teachers' service in preschool?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
4. How might ECEC quality be improved?	2. How might the quality of ECEC services be improved?
5. Are teachers required to do practice training before taking an ECEC job? What kind of pre-service training is required?	3. What are the key factors influencing career opportunities in Taiwanese preschools?
6. Do you think current teacher-training courses at university are sufficient for teachers? What kinds of courses might need to be added?	3. What are the key factors influencing career opportunities in Taiwanese preschools? 4. How might career opportunities be improved for ECEC staff?

7. Do you think in-service training is important for teachers? What kind of in-service training courses are most effective? Do you find time to do in-service training for teachers? How often?	3. What are the key factors influencing career opportunities in Taiwanese preschools? 4. How might career opportunities be improved for ECEC staff?
8. How do you select a teacher to teach in your school? What kinds of quality of teachers are required for your preschool? What kind of work experience should teachers have in your preschool?	1. What are the key factors influencing ECEC quality in Taiwanese preschools? 2. How might ECEC quality in preschools be improved?
9. What do you think are the reasons for high teacher turnover rates?	3. What are the key factors influencing career opportunities in Taiwanese preschools?
10. How might career opportunities be improved for ECEC staff?	4. How might career opportunities be improved for ECEC staff?
11. How do teachers influence ECEC quality?	5. What is the relationship between ECEC quality and staff's career opportunities?
12. Do you think providing a stable teacher can improve ECEC quality? How can teacher retention be improved?	4. How might career opportunities be improved for ECEC staff?
13. What support do you receive from the government?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
14. What are the outcomes of regular evaluations of ECEC quality in ECEC centers in terms of enhancing ECEC quality?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
15. Does your school have children from low income families? Is any help available from government and/or your school? Do you think government measures to address educational quality and support low-income families are sufficient?	1. What are the key factors influencing ECEC quality in Taiwanese preschools? 2. How might ECEC quality in preschools be improved?
16. What needs to change in order to provide government regulations and evaluations that better suit local conditions and needs?	2. How might ECEC quality in preschools be improved?
17. How do you think the government might decrease the number of unregistered preschools and illegally registered preschools?	2. How might ECEC quality in preschools be improved?
18. What is the impact of the Childhood Education and Care Act on ECEC quality and	1. What are the key factors influencing ECEC quality in Taiwanese

career opportunities?	preschools? 3. What are the key factors influencing career opportunities in Taiwanese preschools?
19. To what extent do you think access to ECEC is linked to family decisions about whether to have children?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
20. Is there anything else you would like to add about ECEC quality and career opportunities?	

Table 3.10  
*Questions for Evaluators (Individual Interviews)*

Questions for Evaluators	Related to Research Questions
1. What do you think are the key factors limiting ECEC quality in Taiwan now?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
2. What impact do you think low fertility rates have on ECEC quality? How can they be improved?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
3. What do you think of male teachers' service in preschool?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
4. How might the quality of ECEC quality be improved?	2. How might ECEC quality in preschools be improved?
5. How would you describe career opportunities in ECEC in Taiwan? How might career opportunities be improved?	3. What are the key factors influencing career opportunities in Taiwanese preschools? 4. How might career opportunities be improved for ECEC staff?
6. Are current pre-service and in-service training requirements adequate?	4. How might career opportunities be improved for ECEC staff?
7. Do you think current teacher-training courses at university are sufficient for teachers? What kinds of courses might need to be added?	4. How might career opportunities be improved for ECEC staff?

8. What do you think are the reasons for high teacher turnover?	4. How might career opportunities be improved for ECEC staff?
9. How do teachers influence ECEC quality?	5. What is the relationship between ECEC quality and staff's career opportunities?
10. Do you think providing a stable teacher can improve ECEC quality? How can teacher retention be improved?	4. How might career opportunities be improved for ECEC staff? 5. What is the relationship between ECEC quality and staff's career opportunities?
11. What are the qualifications required to be an evaluator? What kind of work experience should an evaluator have?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
12. Approximately how long does it take to evaluate a preschool? How many times is each preschool evaluated over a given period of time?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
13. How important is evaluation in maintaining ECEC quality? How might the evaluation process be improved?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
14. Do you think government regulations and evaluation fit local conditions and needs?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
15. Do you think government measures to promote equitable access for low income families are sufficient? Why?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
16. What suggestions do you have for changing the funding of ECEC in order to improve access to ECEC?	2. How might ECEC quality in preschools be improved?
17. How do you think we can decrease the number of unregistered preschools and illegal registered preschools? ?	2. How might ECEC quality in preschools be improved?
18. What is the impact of the Childhood Education and Care Act on ECEC quality?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
19. What is the impact of the Childhood Education and Care Act on career opportunities?	3. What are the key factors influencing career opportunities in Taiwanese preschools?

20. Is there anything else you would like to add about ECEC quality and career opportunities?	
---	--

Table 3.11

*Questions for the Government Official (Individual Interview)*

Questions for Government Office	Related to Research Questions
1. What do you define as essential to high quality ECEC?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
2. What impact do you think low fertility rates have on ECEC quality? How can they be improved?	1. What are the key factors influencing ECEC quality in Taiwanese preschools? 2. How might ECEC quality in preschools be improved?
3. How do you think of male teachers' service in preschool?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
4. How might evaluations be utilized to improve ECEC quality?	2. How might ECEC quality in preschools be improved?
5. How would you describe career opportunity in ECEC in Taiwan? How might career opportunity be improved?	3. What are the key factors influencing career opportunities in Taiwanese preschools? 4. How might career opportunities be improved for ECEC staff?
6. Are current pre-service and in-service training requirements adequate?	4. How might career opportunities be improved for ECEC staff?
7. Do you think the courses undertaken by future preschool teachers at university are adequate? What kinds of courses need to be added?	4. How might career opportunities be improved for ECEC staff?
8. What are the reasons for high teacher turnover?	3. What are the key factors influencing career opportunities in Taiwanese preschools?
9. How do teachers influence ECEC quality?	5. What is the relationship between ECEC quality and staff's career opportunities?
10. Do you think providing a stable teacher	4. How might career opportunities be

can improve ECEC quality? How can teacher retention be improved?	improved for ECEC staff?
11. How long does it take to evaluate a preschool?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
12. Are there any changes that should be made to current evaluation procedures?	2. How might ECEC quality in preschools be improved?
13. How often are preschools required to be evaluated?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
14. What kind of work experience and qualifications are required in order to become an evaluator? Are the outcomes of evaluations an accurate measure of the ECEC quality in a preschool?	1. What are the key factors influencing ECEC quality in Taiwanese preschools?
15. Do you think government regulations and evaluations are suitable for local conditions and needs?	2. How might ECEC quality in preschools be improved?
16. Do you think government measures to promote equity in ECEC and to make it affordable for low-income families are sufficient?	2. How might ECEC quality in preschools be improved?
16. How can the number of unregistered preschools and illegally registered preschools be decreased?	2. How might ECEC quality in preschools be improved?
17. Do you think access to ECEC is an issue that impacts on a family's decision to have children? What changes do you think need to occur in Taiwanese ECEC that might encourage families to have more children?	2. How might ECEC quality in preschools be improved?
18. What is the impact of the Childhood Education and Care Act on ECEC quality and career opportunities?	1. What are the key factors influencing ECEC quality in Taiwanese preschools? 3. What are the key factors influencing career opportunities in Taiwanese preschools?
19. Is there anything else you would like to add about ECEC quality and career opportunities?	

### **3.6 Data Analysis**

Data analysis involves the manipulation of raw data collected from various sources by organizing, ordering, evaluating and examining the data using analytical and logical reasoning to extract useful information to form findings or conclusions. Creswell (2008, pp. 156-157) presents the following sequence of data analysis methods for the case study methodology:

1. Create and organize files for data.
2. Read through text, making margin notes, form initial codes.
3. Describe the case and its context.
4. Use categorical aggregation to establish themes or patterns.
5. Use direct interpretation.
6. Develop naturalistic generalizations.
7. Present in-depth picture of the case using narrative, tables, and figures.

This research utilized Creswell's seven methods to carry out data analysis. All the interviews were recorded electronically, transcribed in Chinese and translated into English by a qualified translator. The resulting text was carefully read to identify themes, and notes were taken that formed the basis of initial codes, which were used to categorize emerging themes as well as to identify notable exceptions. After coding, the data was re-examined and compared within the categories and across categories to link the categories together to form the basis of a description or an integrated explanation of the topic (Rubin & Rubin, 1995). The data analysis sequence can be summarized in the following steps:

- Transcribing interviews
- Reading transcriptions in Chinese (to enable exploration of the nuances of the participants' answers and a better and deeper understanding of the data)
- Translating transcripts into English
- Analyzing data and finding common themes
- Coding themes and thematic comments



- Determining themes and identifying anomalies
- Examining and comparing the data
- Building a logical chain of findings

### 3.7 Schedule and Code of Focus Groups and Individual Interviews

The schedule of research activities (focus groups and individual interviews) outlined in Table 3.12 was for October, 2011, and the codes for the participants in focus groups and individual interviews are illustrated in Table 3.13.

Table 3.12  
*Schedule of Focus Groups and Individual Interviews*

Date	Interviews	Number of Participants	Duration
5th Oct 2011	Individual interview with public nursery principal	1	1.5h
5th Oct 2011	(Teacher's Focus Group) public nursery	5	1.5h
12th Oct 2011	(Teacher's Focus Group) privatized public nursery	6	1.5h
12th Oct 2011	Individual interview with evaluator A	1	1h
13th Oct 2011	Individual interview with evaluator B	1	1h
13th Oct 2011	(Parent's Focus Group) privatized public nursery	5	1.5h
13th Oct 2011	Individual interview with privatized public nursery principal	1	1.5h
14th Oct 2011	Individual interview with Government official	1	1.5h
15th Oct 2011	(Parent's Focus Group) private kindergarten	6	1.5h
19th Oct 2011	Individual interview with evaluator C	1	1h
19th Oct 2011	Individual interview with private kindergarten principal	1	2h
19th Oct 2011	(Teacher's Focus Group) private kindergarten	5	2h
21st Oct 2011	(Parent's Focus Group) public nursery	5	1.5h

Table 3.13

*Code for the Participants in the Focus Groups and Individual Interviews*

Code	Interviews	Number of Participant
IPNP	Individual interview with public nursery principal	1
GPNT1~5	(Teacher's Focus Group) public nursery	5
GPNP1~5	(Parent's Focus Group) public nursery	5
IVNP	Individual interview with privatized public nursery principal	1
GVNT1~6	(Teacher's Focus Group) privatized public nursery	6
GVNP1~5	(Parent's Focus Group) privatized public nursery	5
IVKP	Individual interview with private kindergarten principal	1
GVKT1~5	(Teacher's Focus Group) private kindergarten	5
GVKP1~6	(Parent's Focus Group) private kindergarten	6
IE1~3	Individual interview with evaluator 1~3	3
IG	Individual interview with government official	1

### 3.8 Ethical Considerations

The participants in focus groups and individual interviews were provided with detailed information about the purpose and processes of the research. Participants were required to sign consent forms prior to participation in focus groups and interviews. Consent and the information letters are included in Appendix B2. The information obtained from participants is confidential. The identification of all participants and schools has been altered by using pseudonyms, and will not be identified in any publications. These ethical guidelines conform to Australian and Taiwanese regulations, and this project has received CQUniversity Human Research Ethics Committee approval for this research project (see Appendix B1).

### **3.9 Validity of the Research**

Lincoln and Guba (1985) suggest that qualitative research trustworthiness can be evaluated using the criteria of credibility (confidence in the findings), dependability (consistency of the findings), confirmability (lack of researcher bias), and transferability (applicability in other contexts). Credibility, according to Lincoln and Guba (1985), can be demonstrated by means of the criteria of prolonged engagement, persistent observation, triangulation, and peer debriefing.

This research used the peer debriefing technique to achieve credibility by discussing results in depth with the supervisory team of academic and professional staff, and also demonstrated credibility through triangulation of data and prolonged engagement. Interviewing five categories of participants allowed the researcher to uncover biases, perspectives and assumptions. The technique of triangulation of sources is used with interviews in public and private preschools, comparing the viewpoints of the five categories of participants, and reviewing literature (Patton, 1999). Dependability was achieved through careful choice of methods and checking of consistency in conclusions and their relationship with the data. For confirmability, the *Audit Trail* has been observed, with all audio tape transcripts, records, and letters retained to allow verification as needed.

### **3.10 Conclusion**

Based on the literature review in Chapter Two presenting the issues pertaining to ECEC quality and career opportunities in the preschool profession in Taiwan, a qualitative research methodology was constructed to explore the key contributing factors to ECEC quality and career opportunities from the perspective of key

stakeholders. This research used a qualitative case study methodology, collecting data from three categories of preschools through focus group interviews with parents and teachers and individual interviews with principals. The data were coded and analyzed to generate key themes and findings as well as suggestions related to ensuring ECEC quality and career opportunities in Taiwanese preschools. The next chapter presents and discusses these results.

## **Chapter Four**

### **Findings and Discussion**

The previous chapters have presented a literature review and methodology of a case study exploring ECEC quality and career opportunities in Taiwanese preschools and identifying strategies for improvement in these areas. This chapter presents findings derived from interview data obtained from focus group interviews with teachers and parents and from individual interviews with principals in three types of preschools (a Public Nursery (PN), a Privatized Public Nursery (PPN), and a Private Kindergarten (PK)). This chapter also presents and discusses findings from interviews conducted with sector-wide interest groups (3 evaluators and a GO) in a city located in the southern part of Taiwan. The following questions were central to this research project:

- (1) What are the key factors influencing ECEC quality in Taiwanese preschools?
- (2) How might ECEC quality in preschools be improved?
- (3) What are the key factors influencing career opportunities in Taiwanese preschools?
- (4) How might career opportunities be improved for ECEC staff?
- (5) What is the relationship between ECEC quality and staff's career opportunities?

This chapter is structured to address these key questions by summarising the responses from the five interviewee categories (teachers, parents, principals, evaluators, and the GO) for each question, then analysing the interview data for each question in turn. The interviewee comments are analysed and categorized into themes, and similarities and differences of opinion on each theme are explored. The interview data were analysed and evaluated within a conceptual framework that draws on the

work of Katz (1993), Cryer et al. (1999) and Espinosa (2002), as detailed in Chapter Two.

This chapter is organised into four sections associated with key interview questions and emerging themes. The first section describes participants' perceptions of the key factors influencing ECEC quality identified by a count of frequency of utterance and reported for each participant group and sub-group to identify similarities and differentials in emphasis across the sector. Following from this, the factors identified by participants as critical to quality ECEC are discussed individually and in depth and explore the meanings ascribed to these factors by participants. In addition, participants' suggestions on how to improve ECEC quality are presented. The second section explores participants' perceptions of the key factors influencing career opportunities in preschools and their suggestions on how to improve the career opportunities of the staff. The third section explores the relationship between ECEC quality and career opportunities in preschools, and the fourth section concludes this chapter.

#### **4.1 What are the Key Factors Influencing ECEC Quality?**

Responses to the ECEC quality-related questions elicited from the five participant categories generated a total of seven identifiable common themes, but due to varying vocational perspectives and experiences, the participants in each specific employment or stakeholder category focused on different quality factors. In answering research question 1, 'What are the key factors influencing ECEC quality in Taiwanese preschools?', the following common themes were identified: teacher quality, teaching and caring, government policy, physical environment, staff-child ratios, principals'

leadership and parent-teacher communication. These key factors in ECEC quality were identified across the thirteen participant groups and are listed by frequency of occurrence in the interviews in Table 4.1 (Appendix A1). Priority topics for each group were identified by the number of times they were mentioned by each of the groups in analysis of interview transcripts. Frequency of occurrence may be an indication of the emphasis and concern placed by participants on certain issues. This may be used as a priority indicator of the ECEC quality perceptions of the participant groups. In addition, interview durations are provided in Table 4.1 as a reference for the interpretation of the frequency of occurrence.

The following description of the interviews with the PN groups may be used as an example to illustrate and interpret Table 4.1. In the individual interviews, the PN principal considered teacher quality, teaching and caring, government policy, physical environment, staff-child ratios, and principals' leadership to be key factors. The frequencies with which these factors were mentioned are 134, 64, 61, 14, 8, and 5 times respectively. It is quite obvious that teacher quality stands out as the key factor. The PN teachers' focus group considered teacher quality, teaching and caring, government policy, physical environment, parent-teacher communication, staff-child ratios, and principals' leadership as key factors, mentioned 26, 18, 9, 9, 6, 5, and 2 times respectively. The PN parents' focus group considered teacher quality, teaching and caring, government policy, parent-teacher communication, staff-child ratios, and principals' leadership as key factors, mentioned 94, 44, 21, 5, 1, and 1 times respectively.

It is important to note and explain that Chinese-English translation was required for analysis and reporting of participant interview transcripts and that English terms used to describe these themes often corresponded to several words or phrases in Chinese. Thus, “teacher quality” refers to the quality of “teachers”, an English word corresponding to three different terms in the interviews: “師資”, “老師” and “教師”. Each mention of these Chinese words in reference to quality was counted as an instance of the “teacher quality” theme. The theme of “teaching & caring” in the interviews was counted with reference to the Chinese words “教” or “教學” (both translated as “teaching”) and “照顧”, “保育”, and “托育” (translated as “caring”). The frequency of “government policy” in the interviews was counted with reference to the Chinese terms “政府” (“government”), “教育部” (MOE) and “內政部” (MOI) – all referring to government, and “政策” (“policy”).

The research participants can be usefully understood to form two distinct groups, namely sector-wide interest groups (evaluators and the GO) and the preschool-based groups (principals, teachers and parents), who have an immediate and intimate experience of ECEC specific to a preschool. The work of the evaluators and GO involves monitoring and enforcing government policy and regulations. There were nine preschool-based groups and four individuals from sector-wide groups (three evaluators and the GO).

A summary of the emphasis placed on the seven major themes identified by preschool-based groups compared with sector-wide groups is provided in Table 4.2 (Appendix A1). All participant groups emphasized the importance of teacher quality, teaching and caring, and government policy on ECEC quality. The emphasis on



teacher quality and teaching and caring may be related to the Confucianism underlying Taiwanese cultural values emphasising respect for teachers and the importance of study for children (Tran, 2013). Participants were also quite aware the government can make policy to allocate resources that influence ECEC quality. A significant divergence emerged between the concerns of schools-based groups and sector-wide groups on the importance of parent-teacher communication, staff-child ratios, principals' leadership and physical environment, with the GO and evaluators placing far less emphasis on these factors than the schools-based groups. Staff-child ratios and physical environment were mentioned by only six out of the total of thirteen groups. The data suggest that staff-child ratios and physical environment have a lower priority than other factors for all groups. These two factors, plus principals' leadership, received a particularly low number of mentions by the non-preschool-based group (principals' leadership and staff-child ratios were mentioned once each in this group; physical environment was not mentioned at all). Thus, the priority factors in ECEC quality as measured by the number of participant groups referring to them are ranked in the following order: teacher quality, teaching and caring, government policy, parent-teacher communication, principals' leadership, staff-child ratios, and physical environment. The top three priorities of ECEC quality factors as perceived by the thirteen participant groups are shown in Figure 4.1. Two evaluators considered teaching and caring as top priorities. This suggests that teaching and caring is the major focus of evaluations. The majority of the participant groups (eleven of the thirteen) considered teacher quality as a top priority factor, and the majority of the participant groups (ten of the thirteen) considered teacher quality, teaching and caring, and government policy to be the ECEC quality factors with the highest priority.

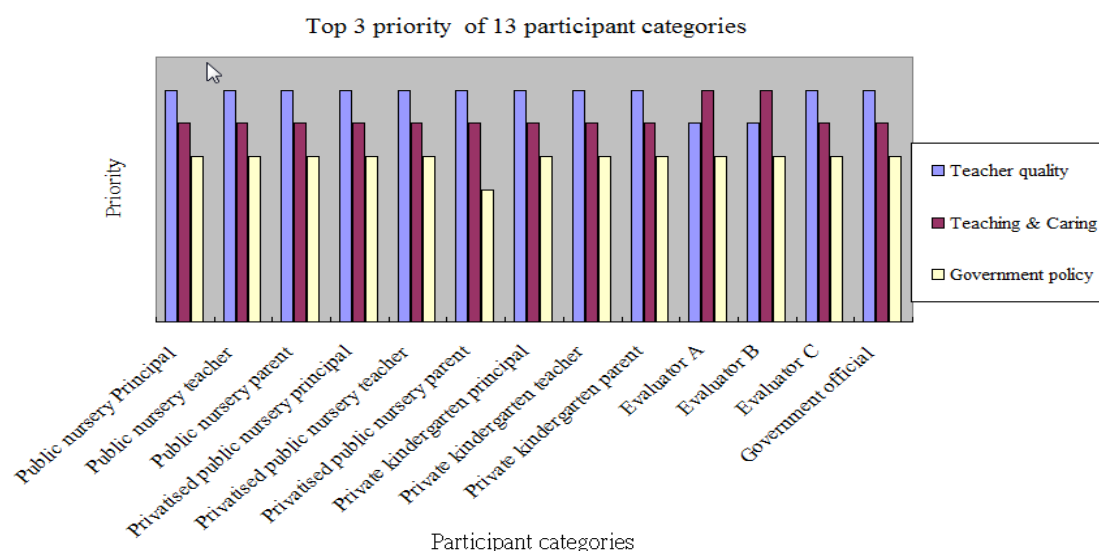


Figure 4.1. The top three ECEC quality factors.

### ***Key Factors in the Public Nursery Participant Groups***

The priorities given to factors influencing ECEC quality as perceived by the PN participant groups are measured by frequency of reference and shown in Figure 4.2. The principal, teachers and parents were in agreement that the top three priority factors were teacher quality, teaching and caring, and government policy. The principal and teachers considered the fourth key factor to be physical environment, but parents did not mention it, instead considering parent-teacher communication as the fourth key factor. Two other factors on which teachers, parents, and principals did not agree in terms of priority were staff-child ratios and principals' leadership.

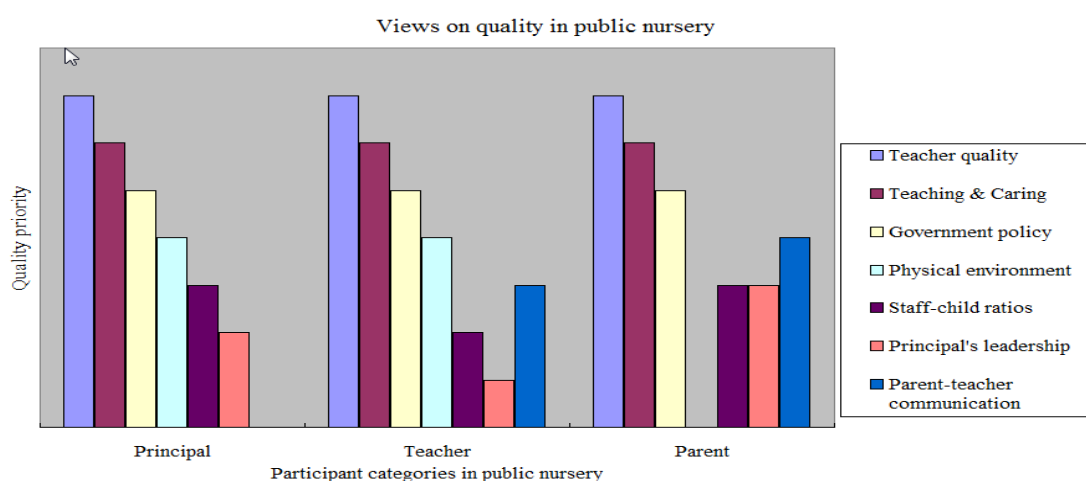


Figure 4.2. High-priority ECEC quality factors as perceived by the PN groups.

The key factors influencing ECEC quality as perceived by the PN principal, teachers, and parents are illustrated in Figure 4.3. The three groups were in agreement that teacher quality, teaching and caring, government policy, staff-child ratios, and principals' leadership were essential factors. The finding that the principal, teachers and parents all identify staff-child ratios as a key factor may be connected with the less privileged SES of the children in the PN. Other participant groups did not place the same emphasis on staff-child ratios: for example, staff-child ratios were mentioned by only two out of three groups in the PPN, one out of three groups in the PK, one of three evaluators, and were totally neglected by the GO. Children from low SES backgrounds are living in an environment where there are limited funds available, where they may lack learning resources such as books, play equipment, toys and computers, and where they may be less likely to receive adequate care at home. As a result, they are likely to encounter more educational difficulties than those with medium or high SES in areas such as language skills, nutrition, and emotional and behavioral regulation (Devlin and O'Shea, 2010; Jonassaint, Siegler, Barefoot, Edwards, & Williams, 2011). Thus, these children are more likely to have language, emotional or behavior issues that require more management and attention from teachers (Devlin and O'Shea, 2010). Supplying this extra management and attention is only feasible in classrooms with high staff to child ratios. In low staff to child ratio scenarios, teachers would not have adequate time to provide individual attention to children and the needs of low-SES children would be difficult to accommodate. In the public nurseries in the research sample of this project, concern about staff to child ratios was strongly communicated and low SES families were predominant in the client base.

Other key factors were physical environment and parent-teacher communication. The PN principal and teachers agreed that physical environment was a key factor. The PN has limited indoor space and no outdoor space and facilities since it shares space in a community center, but the principal and teachers expressed hope that government subsidies might allow them to gain access to better facilities. Teachers and parents were in agreement that parent-teacher communication was an important factor because of their personal experience of its importance.

Teachers mentioned all seven factors. Teachers' greater awareness of the full range of factors affecting ECEC quality is not surprising given their intimate and comprehensive involvement in the functioning of the preschool. Parents did not mention physical environment as a factor, presumably because it is not a key priority for them. Since PN fees are usually much lower than private nursery fees, these parents may have low expectations in regard to the physical environment. The principal did not mention parent-teacher communication as a key factor, presumably because the principal is not directly involved in such communication.

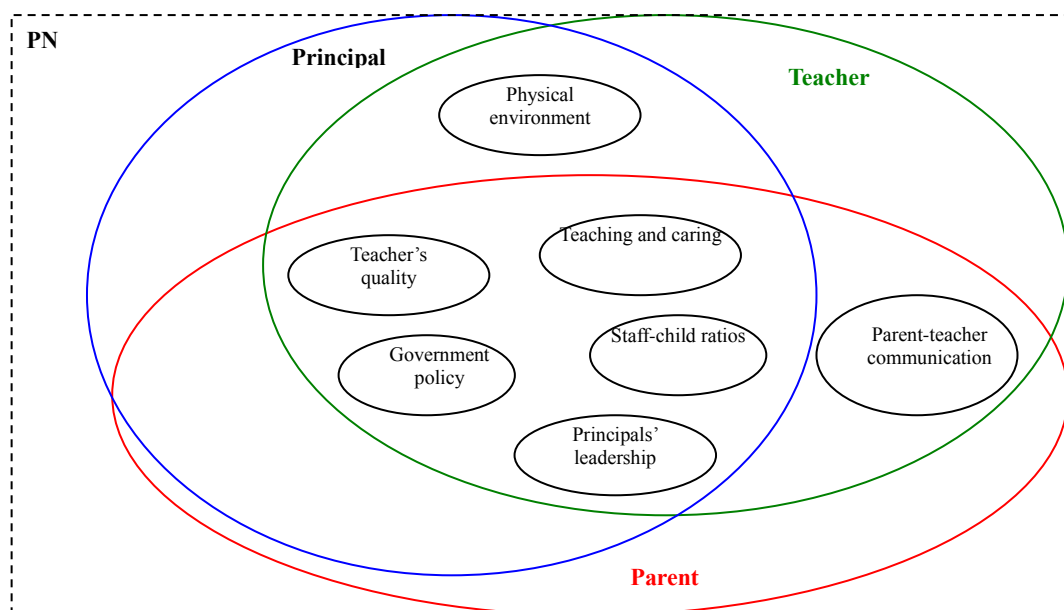


Figure 4.3. Venn diagram indicating the key factors influencing ECEC quality as perceived by the PN participant groups.

### ***Key Factors in the Privatized Public Nursery Participant Groups***

The priorities given to factors influencing ECEC quality by PPN participant groups are shown in Figure 4.4 (Appendix A2). The principal, teachers and parents were in agreement that the top two priority factors were teacher quality and teaching and caring. The principal and teachers considered the third priority factor to be government policy, but the parents' third priority was parent-teacher communication. The principal and teachers' fourth priority factor was staff-child ratios, but the parents' fourth priority was government policy. There was no agreement on the priorities of the remaining factors among these three groups.

The key factors influencing ECEC quality as perceived by the PPN principal, teachers, and parents are illustrated in Figure 4.5. The principal, teachers and parents were in agreement that teacher quality, teaching and caring, and government policy were essential factors. The principal and teachers agreed that staff-child ratios were a key factor. The principal and parents were in agreement that physical environment was an important factor. Teachers and parents agreed that principals' leadership and parent-teacher communication were essential factors. The teachers did not mention physical environment as a key factor, perhaps because their facilities are neither particularly spacious nor inadequate and cramped. The parents did not mention this factor either, perhaps because of low expectations given the low fees charged by the PPN. Participants from the PPN and PN prioritise the same three key factors contributing to quality of ECEC in Taiwan, that is: teacher quality, teaching and caring and government policy.

The staff to child ratio factor was mentioned by all three groups in the PN, but it was not mentioned by the PPN teacher group. The socio-economic characteristics of the children attending the different ECEC centers may at least partly explain this, as the PN has many children from low SES background who have been found to need more attention, while most children in the PPN are from mid to high SES backgrounds and do not have the same level of need for attention from staff.

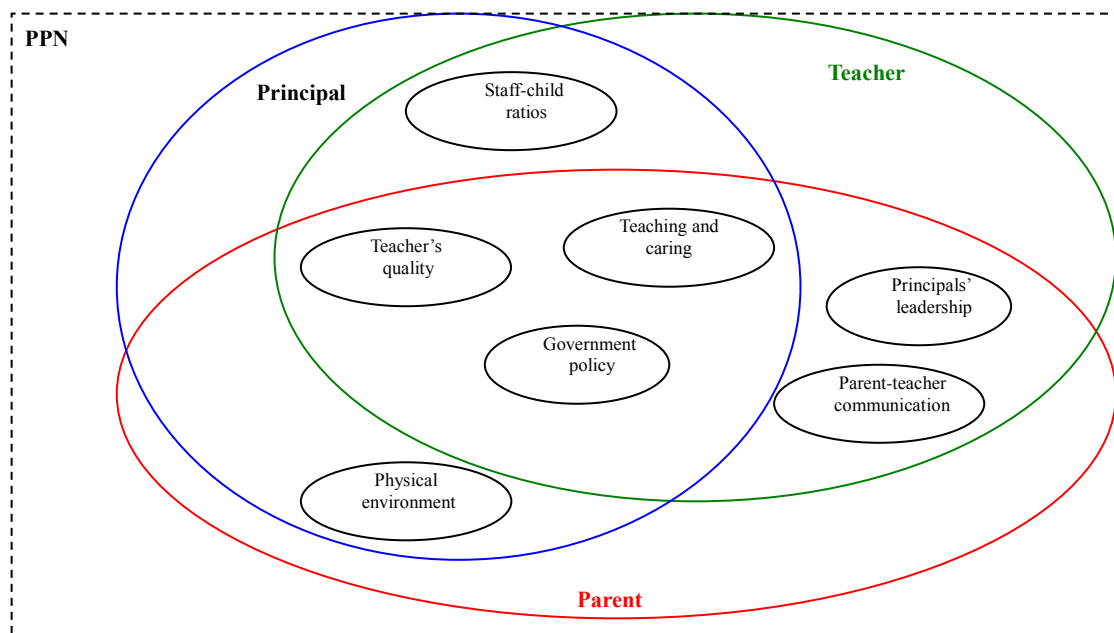


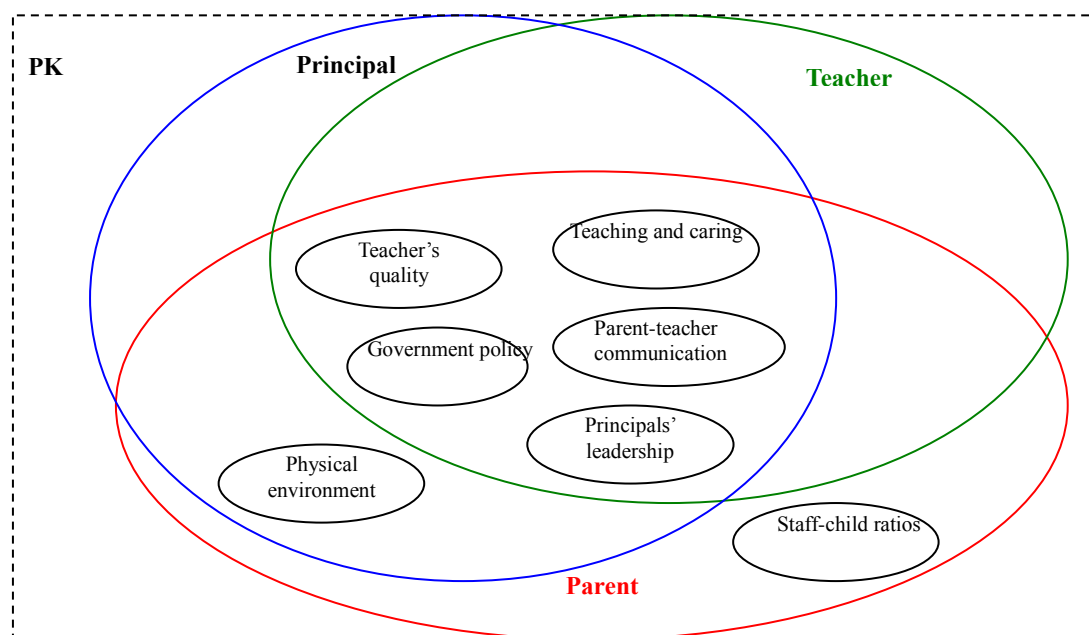
Figure 4.5. Venn diagram indicating the key factors influencing ECEC quality as perceived by the PPN participant groups.

### ***Key Factors in the Private Kindergarten Participant Groups***

The priorities given to factors influencing ECEC quality as perceived by PK participant groups are shown in Figure 4.6 (Appendix A2). The principal, teachers and parents were in agreement that the top three priority factors were teacher quality, teaching and caring, and government policy. The principal and parents considered the fourth key factor to be physical environment, but teachers did not mention it, instead considering principals' leadership to be the fourth priority factor. All participant

groups considered the fifth factor to be parent-teacher communication. There was no agreement on the priorities of the remaining factors among these three groups.

The key factors influencing ECEC quality as perceived by the PK principal, teachers, and parents are illustrated in Figure 4.7. The principal, teachers and parents agreed that teacher quality, teaching and caring, government policy, parent-teacher communication, and principals' leadership are essential factors. The principal and parents were in agreement that physical environment is an important factor. Only parents mentioned staff-child ratios as an essential factor. This difference in responses suggests that the principal and teachers place less importance on staff-child ratios than parents do. Parents mentioned all seven key factors, perhaps because of higher expectations regarding ECEC quality associated with the high SES of most of the parents in this group.



*Figure 4.7.* Venn diagram indicating the key factors influencing ECEC quality as perceived by the PK participant groups.

The priority given to each ECEC quality factor by the principals of the three preschools is shown in Figure 4.8 (Appendix A2). All three principals were in

agreement that the top three factors in ECEC quality are teacher quality, teaching and caring, and government policy. There was no agreement on the priorities of the remaining factors among principals.

The seven key factors influencing ECEC quality from the perspectives of principals in the three preschools are illustrated in Figure 4.9. All the principals agreed that teacher quality, teaching and caring, government policy, and physical environment are key factors. The PN and PPN principals were in agreement that staff-child ratios are an essential factor. The PN and PK principals were in agreement that principals' leadership is an important factor.

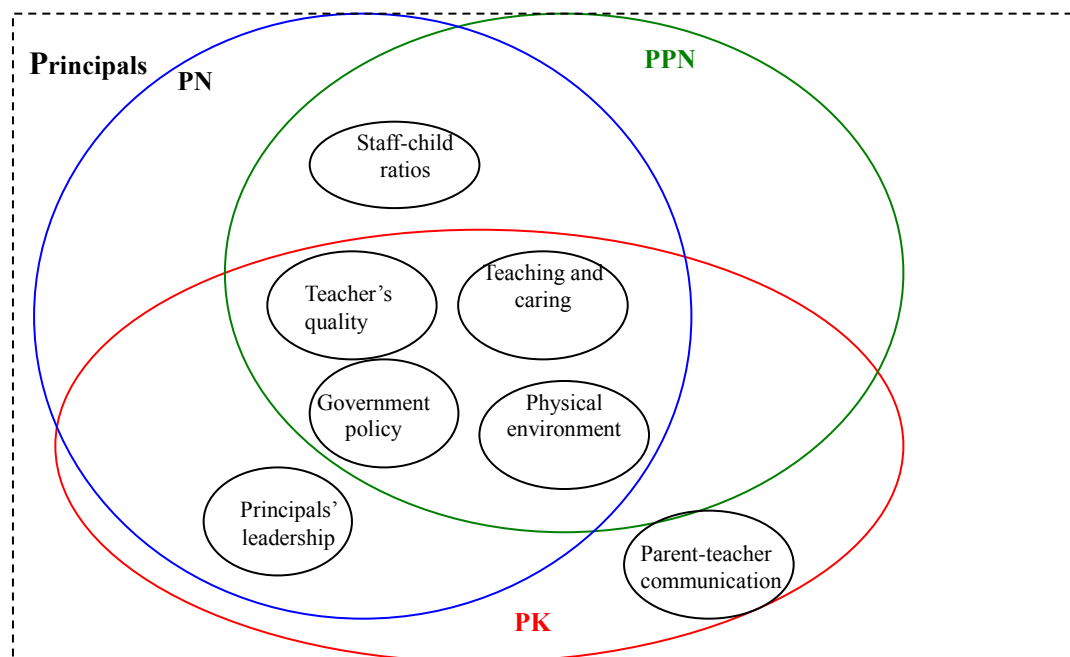


Figure 4.9. Venn diagram indicating the key factors influencing ECEC quality as perceived by the principals in the three types of preschool.

### ***Key Factors in ECEC Quality according to Teachers***

The priorities given to factors influencing ECEC quality by the teachers in the three preschools are shown in Figure 4.10 (Appendix A2). All teacher groups were in



agreement that the top three priority factors influencing ECEC quality are teacher quality, teaching and caring, and government policy. There was no agreement on the priorities of the remaining factors among these teacher groups. The seven key factors influencing ECEC quality from the perspectives of teachers in the three preschools are shown in Figure 4.11. All teacher groups agreed that quality, teaching and caring, government policy, parent-teacher communication and principals' leadership are key factors. The PN and PPN teacher groups were in agreement that staff-child ratios are an essential factor. Only the PN teacher group considered physical environment to be an essential factor. The reason that PK teachers did not mention staff-child ratios could be that their children were mostly from higher-SES families, who usually have better social and academic ability and make fewer demands on the teachers (Aikens & Barbarin, 2008; Morgan, Farkas, Hillemeier, & Maczuga, 2009). These children may have better academic ability in areas such as mathematics or language and fewer problems such as inattention and uncooperativeness than children from low-SES.

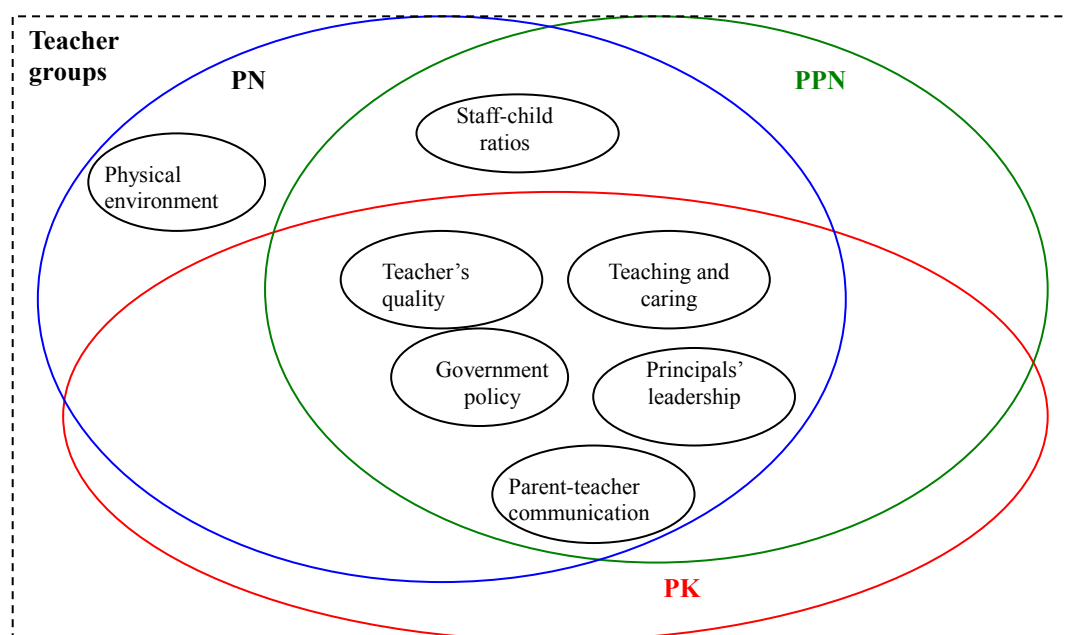


Figure 4.11. Venn diagram indicating the key factors influencing ECEC quality as perceived by the teacher groups in the three types of preschool.

### ***Key Factors in ECEC Quality according to Parents***

The priorities given to factors influencing ECEC quality by the parent groups in the three preschools are shown in Figure 4.12 (Appendix A2). All three parent groups were in agreement that the top two factors influencing ECEC quality are teacher quality and teaching and caring. The third priority factor for PN and PK parents was government policy, but for PPN parents was parent-teacher communication. There was no agreement on the priorities of the remaining factors among these parent groups. The seven key factors influencing ECEC quality as perceived by the parent groups in the three preschools are illustrated in Figure 4.13. The three parent groups agreed that teacher quality, teaching and caring, government policy, parent-teacher communication and principals' leadership are key factors. In addition, the PN and PPN parent groups considered physical environment to be an essential factor. Of the three preschools in the research sample, the PN has limited indoor space and no outdoor space and facilities since it shares space in a community center. The PPN has sufficient indoor space, but lacks outdoor space and facilities. The PK has a large outdoor space and indoor space, and parents are quite happy with the good facilities, considering physical environment as a key factor. It appears that the amount of indoor and outdoor space available to each school is inconsistent, which may limit the capacity of schools to deliver high quality care. Although regulation of the space requirements for ECEC exists in Taiwan, most public nurseries do not satisfy the space requirement since they are sharing with community centers. In addition, unregistered private nurseries and kindergartens do not meet the space requirement. This space issue is further complicated by the passing of the CECA Act on January 2012. All nurseries have been compelled by the new legislation to convert to

preschools and are now required to meet stricter space requirements that are difficult for them to achieve.

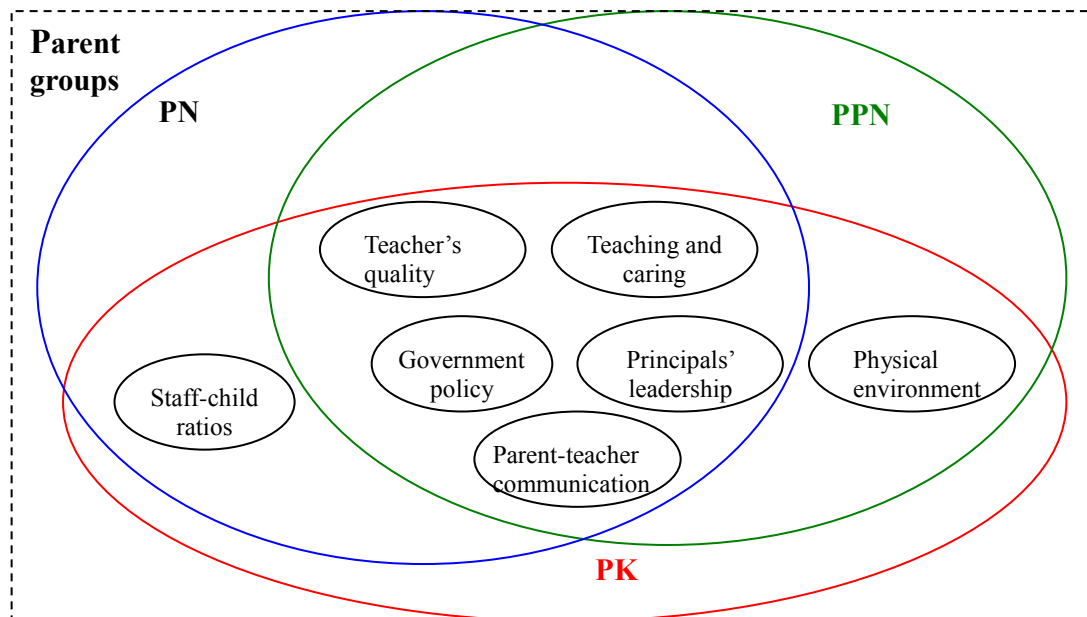


Figure 4.13. Venn diagram indicating the key factors influencing ECEC quality as perceived by the parent groups in three types of preschool.

### ***Key Factors according to Evaluators and the Government Official***

The priorities given to factors influencing ECEC quality by evaluators are shown in Figure 4.14 (Appendix A2). Evaluator A and Evaluator B both mentioned three factors (teaching and caring, teacher quality, and government policy, in order of priority), while Evaluator C mentioned six, of which the top three were teacher quality, teaching and caring, and government policy. The key factors influencing ECEC quality as perceived by evaluators are illustrated in Figure 4.15. The factors influencing ECEC quality as perceived by the GO are shown in Figure 4.16 (Appendix A2). The GO considered teacher quality, teaching and caring, government policy, and parent-teacher communication as the four top priority factors.

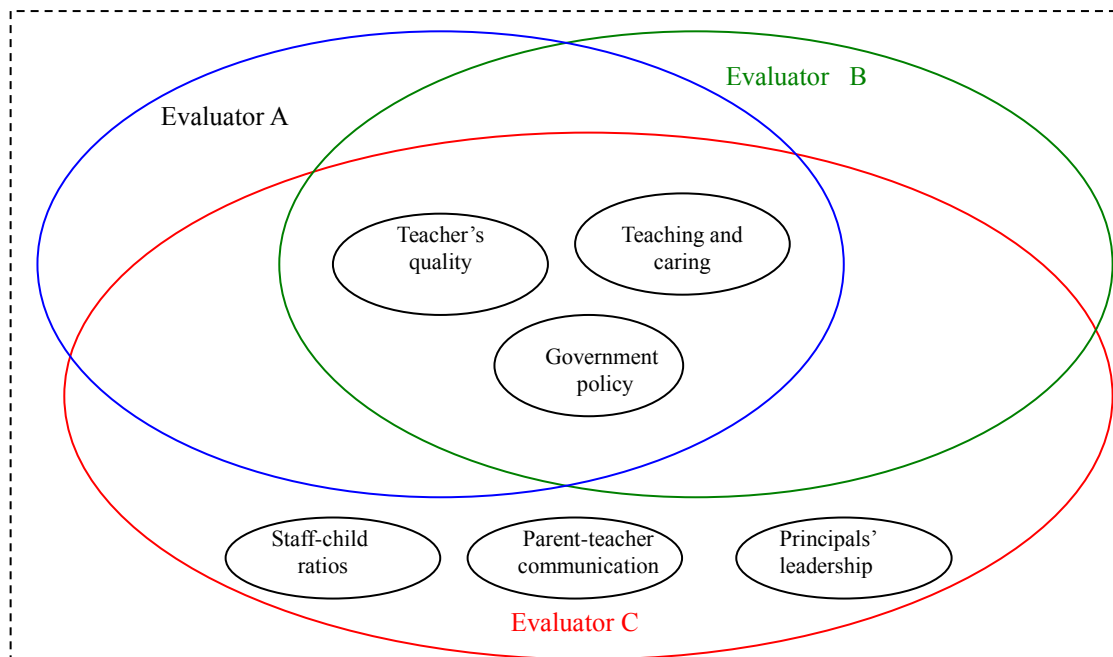


Figure 4.15. Venn diagram indicating the key factors influencing ECEC quality as perceived by evaluators.

#### ***Key Factors for the School-based Groups and Sector-wide Groups***

The key factors influencing ECEC quality were compared between preschool-based groups and sector-wide participant groups as shown in Figure 4.17. Preschool-based groups were in agreement that there were seven key factors influencing ECEC quality: teacher quality, teaching and caring, government policy, staff-child ratios, principals' leadership, physical environment and parent-teacher communication. Sector-wide groups agreed on the importance of teacher quality, teaching and caring, government policy, and parent-teacher communication as factors. Preschool-based groups were quite concerned about all seven factors, while the sector-wide groups did not put physical environment as a priority. The evaluators considered staff-child ratios and principals' leadership to be key factors, while the GO did not consider them a priority.

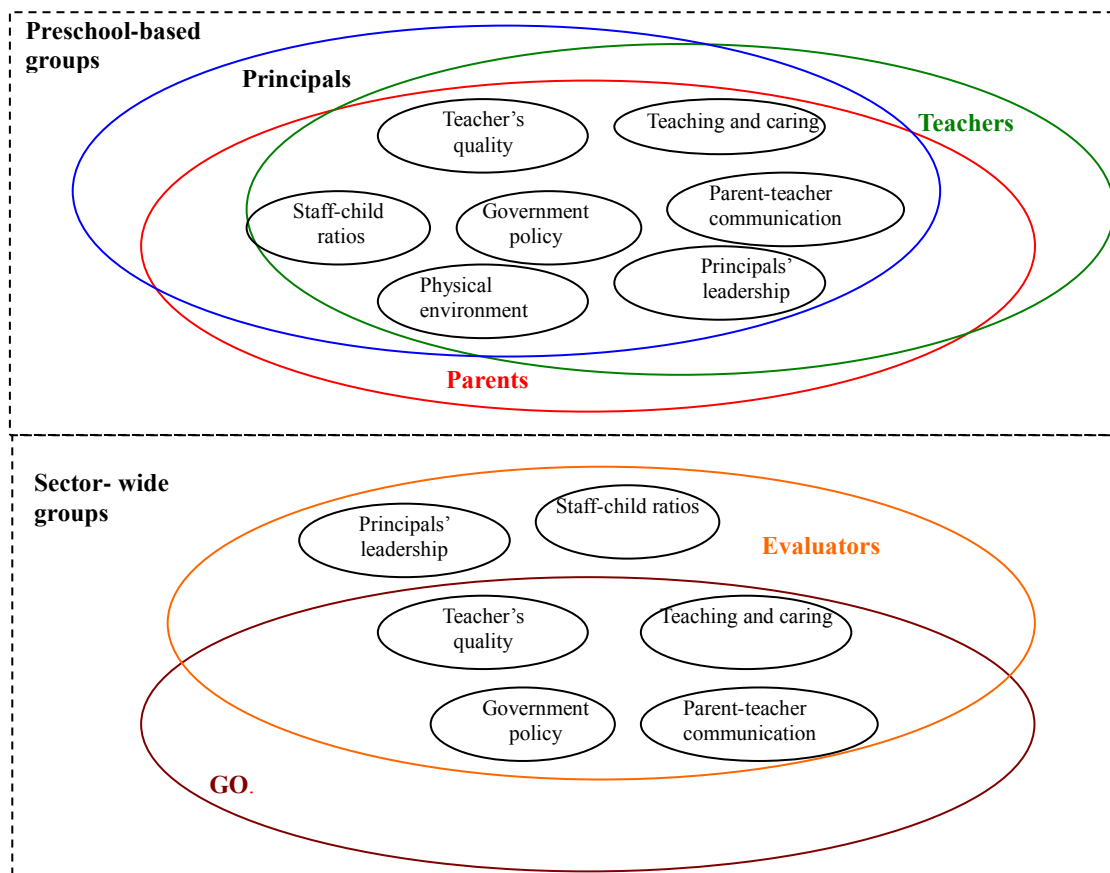


Figure 4.17. Venn diagram indicating the key factors influencing ECEC quality as perceived by preschool-based groups and sector-wide groups.

### *Summary of Perceptions of Key ECEC Quality Factors*

It is clear from analysis of interview transcripts that teacher quality was considered the most important factor affecting the quality of ECEC in Taiwan by all stakeholders. In general, there were no clear disagreements on the top three factors of ECEC quality but there were some discrepancies regarding the fourth to seventh priority factors among the different participant categories and groups. For example, all participant groups considered teacher quality, teaching and caring, and government policy as key factors in ECEC quality, and ten of the thirteen participant groups considered these three factors as top three priority factors in ECEC quality.

There was, however, a difference in emphasis, with some participant groups focusing more on particular items. This may reflect a lack of alignment between the needs of parents, principals, and on-the-ground staff on the one hand, and the evaluators and officials who oversee the industry on the other. For example, the preschool-based participant groups were more concerned about principals' leadership, physical environment, and staff-child ratios than sector-wide groups were.

A total of seven themes were identified in the response of principals, teachers, and parents in the preschool sector. Among participants not directly involved in the actual delivery of care in this sector, the evaluators mentioned six of these themes, as did the GO. Some themes were not mentioned at all by some participant categories as influential factors in ECEC quality. In some cases, they thought that while the factor concerned did not directly influence ECEC quality, it might have an indirect effect. These themes are discussed in depth in the following sections.

#### **4.1.1 Quality of Teachers**

For most participants, the most significant factor in the quality of ECEC is the teachers, who play an essential role in ECEC by caring for and teaching children on a daily basis. This perception aligns with the recognition of the centrality of the teachers' role in the ECEC literature (Jackson, 2012). Teacher quality is related to NAEYC accreditation item six, "employ teaching staff with educational qualifications, knowledge, and professional commitment" (NAEYC, 2008 pp.1-3). Research indicates that school quality is related to teacher quality and is enhanced when teacher quality is improved (Whitebook et al., 2009) and that good ECEC requires teachers with professionalism and experience (Tseng, 2010). Good teachers

play a key role in socialising students appropriately and encouraging student achievement (U.S. Department of Education, 2007). As the PN principal commented, “to enhance ECEC quality, you need good teachers.”

Tseng (2010, p. 78) found that the features of a good preschool teacher from the perspective of parents in a Taiwanese kindergarten include: (1) patience and affection; (2) emphasising moral education; (3) teaching actively; (4) good communication skills; (5) educational and working experience with appropriate qualifications; and (6) capacity for continued learning and having a passion for the job. The standards of NAEYC (2008) for teachers are educational qualifications, knowledge, and professional commitment. These findings are similar but with some variations to the findings of the present research. Good quality preschool teachers were understood by interviewees to have a ‘passion’ for their work, appropriate qualifications, experience, and the ability to communicate with parents. The following quotations from the transcripts illustrate these themes: “If there’s no passion, the service is definitely not good” (IVNP); “Teachers must have the right qualifications” (GVKP2); “A good teacher is first of all a person with experience and knowledge” (IPNP); “Parents and teachers all need to have good communication skills” (GPNP4). However, many interviewees across participant group categories argued that low pay and high stress levels impacted on the quality of teaching staff. The characteristics of teacher quality identified in the interviews can be described in terms of passion, qualifications, professionalism and experience, pay and benefits, and working conditions. The significance of these factors for teacher quality is discussed below.

### ***Passion***

Day (2004) contends that teachers need to fully engage in their work with “passion”. Teachers with a passion for caring and teaching can kindly support and motivate children to mature and learn. “Passion” [熱忱] was also a key term in the interview data; it was considered by many interviewees as essential for the provision of high quality ECEC. The PPN principal contended: “only if you have passion for your job can you provide good service quality.” A member of the PN parents’ focus group claimed that: “if a teacher has a genuine passion for children, none of them will dislike her.”

Thus, it appears that a passion for teaching can build the good relationships with children necessary for effective teaching and caring work. Passion was perceived to involve personal interest, commitment and enthusiasm rather than to be a trait acquired from formal study, but it was deemed to be equally important to quality ECEC teachers. This result may have significance for the recruitment of teachers in ECEC. Jackson (2012) suggests that pre-service teacher aptitude is an important indicator for recruitment and is measured by a range of performance factors derived from qualifications and work records. However, assessing a teacher’s passion for the role in recruitment interviews may be more challenging. It is important to encourage teachers to develop and maintain passion for their work, and recognising, rewarding and promoting passion for ECEC and teaching has emerged from the comments of participants as an important component of a strategy to improve ECEC quality. However, promoting a passion for teaching is not likely to be compatible with the current working conditions for teachers, since low pay and long hours are likely to



diminish the passion of even the most committed teacher. How to promote passion in this context is a challenging question.

### ***Qualifications***

Research indicates that teacher qualifications are relevant to the quality of ECEC (Barnett, 2003; Tout, Zaslow, & Berry, 2006). Although one parent from the PK parents' focus group understood that "...teachers are required to obtain a certificate of qualification," parents were generally unaware of teachers' qualifications or of whether a teacher is formally competent or professional when they choose preschools for their children. Many parents simply assume that teachers have the appropriate qualifications to verify their competence.

The lack of transparency and public awareness regarding minimum teacher qualifications and the consequent disempowerment of parents in decisions related to ECEC could be improved with stricter implementation of qualification requirements and by ensuring that parents can easily access information regarding teachers' qualifications through a web site or bulletin board. A model for such an initiative is provided by the Australian Curriculum, Assessment and Reporting Authority (2010), which has been publishing data on all Australian schools online since January 2010. Also NQF and NQS provide quality framework and standards in Australia for ECEC services (Council of Australian Governments, 2009; Hydon, 2013; NQS, 2009).

Although Taiwanese ECEC policy requires that teachers achieve a minimum qualification for employment in kindergarten and nursery, many preschool teachers in Taiwan are not qualified as required by government regulations (Hsieh, 2008; Jang, 2007; Tsai, 2002; Yang et al., 2002). The GO commented, "After integration, the

education department wants to improve the ability and certifications of teachers, so it will definitely have stricter requirements regarding teacher quality than it has now.”

The PN principal worried that after integration, some older teachers might retire because they do not have teacher’s certificates:

After integration, older teachers without teacher’s certificates might choose retirement because they will not be able to teach. This might mean that the experience of older teachers is no longer passed down to younger teachers. (PN Principal)

But the teachers without a teacher’s certificate can still teach and care for a class of children under 5 year old, and the principal may encourage older teachers to work in this capacity and help new teachers with their experience. In Taiwan, the regulation requires a teacher’s certificate for teaching five year old children but not for children under five years as a consequence of the national emphasis on education for five year old children. The CECA requires that the staff-child ratio for infants under the age of three in preschools be 1:8, necessitating the recruitment of many additional ECEC staff. The GO pointed out that “kindergartens have a lot of unqualified teachers,” which potentially affects the quality of ECEC available in Taiwanese centers. Some private preschools employ unqualified teachers at a lower salary to reduce the operating costs of the preschool and to overcome the difficulty of recruiting qualified teachers when poor pay and benefits are offered. It is very difficult to monitor whether preschools follow the regulations given the lack of human resources available to the MOE, so breaches of the regulations are usually neglected unless a member of the public reports them and provides evidence. As parents are frequently unaware of the qualifications of teachers, this reporting is unlikely to be effective. It may be necessary to make more staff available to the MOE to assist them in monitoring and enforcing the requirements for minimum qualifications of staff in preschools

effectively. In addition, there is a need make these standards transparent and well-publicised to facilitate parents' ECEC decisions. At present, as a result of the widespread employment of under-qualified teachers and a lack of parental involvement in staff recruitment decisions, it is difficult for parents to have confidence that their choices in selecting an ECEC provider are adequately informed and result in quality care for their children.

### ***Professionalism and Experience***

Research shows that experienced teachers can make a substantial contribution to children's learning (Goe, 2007). A qualification alone cannot enable teachers to respond to real life scenarios with informed and experience-based recognition of problems and potential solutions (Rockoff, Jacob, Kane, & Staiger, 2011). As the PN principal commented, "A good teacher, first of all, is a person with experience and knowledge." Experienced teachers may have the knowledge required to recognize and diagnose learning problems and to identify and use appropriate techniques to motivate children to learn and achieve optimal learning results. The PK principal considered that teachers who have their own children can deliver better care in the preschools as a result of their close experience of child raising. In addition, experienced teachers can provide the support that new teachers require to survive and succeed in the first year, which Katz (1972) and Shoffner (2011) identify as a critical period in a teacher's career. Yang et al. (2002) argue that heavy workload and low salaries contribute to a high turnover rate of Taiwanese preschool teachers. High teacher turnover implies limited retention of experienced teachers in school. Recent research has shown that some Taiwanese teachers lack adequate knowledge and ability to manage critical situations such as asthma attacks and are unable to provide care for children with

disabilities (Hung et al., 2008; Sung, 2007). Teachers without professional knowledge, skills and experience may not be able to adequately contribute to children's development and may even inhibit the safety, nutrition and emotional wellbeing of children in care.

Experienced early childhood teachers are defined as those having five years or more classroom experience (Tsui, 2005). However, teaching experience alone does not equate to expertise (Tsui, 2005). Experienced teachers also need professional learning to cultivate and update their knowledge and expertise (Martin, Yin, & Mayall, 2006; Tsui, 2003). The PPN principal commented, "If you never have any improvement in your work skills, how can you keep this job forever?" If teachers never have the opportunity and encouragement to improve or refresh their knowledge and skills, it is difficult for them to pursue long term careers in preschool and to manage the challenges that emerge over generations of children and developments in technologies and policies affecting education and care. The ideal teacher, then, is qualified to teach early childhood groups, has achieved a degree of experience in dealing with ECEC classroom scenarios and has opportunity for ongoing professional learning. This set of requirements is not yet achieved in the Taiwanese ECEC sector.

### ***Improving the Quality of Teachers***

Key suggestions for improving the quality of teachers provided in interviews with participants were enhancing teachers' passion for ECEC, requiring teachers to obtain appropriate qualifications, strengthening professionalism and experience, and increasing teachers' ability to communicate with parents. A major theme in participants' comments regarding the passion of teachers for their work is that it is

difficult for such passion to survive without improving teachers' salary and working environment. The strengthening of professionalism and experience could be achieved through improving university courses and in-service training. According to a member of the PN teachers' focus group, "The practical aspect of the courses in universities is quite meagre." In addition, the PPN principal commented that novice teachers find it difficult to deal with stress. Therefore, university and in-service training might include practical courses on teacher-parent communication that could increase teachers' ability to communicate with parents and include training courses to overcome stress. The roles and responsibilities of state and local education institutions for professional learning and development of teachers in the USA were described in Chapter Two, Table 2.19. This system of delivery of professional learning and development could be a good reference for Taiwanese authorities to coordinate effective professional learning and development for teachers.

Good teachers can provide ECEC quality. But retaining good teachers in schools is a challenge that may require better pay and benefits. A member of the PPN teachers' focus group proposed that preschools should "raise teachers' salary and benefits, and give teachers appropriate social status." Raising teachers' salaries may require government to subsidize teachers. To improve benefits to teachers, government subsidies for preschools could be tied to benefits for teachers working in them, such as evidence-based provision of appropriate working hours, support for in-service training during the workday, and free places for children of staff. Such strategies are an important part of addressing quality issues in Taiwanese ECEC which are perceived as critically dependent on the retention of good teachers.

#### **4.1.2 Teaching and Caring**

NCCIC (2011) defines the process of ECEC as “looking after, safeguarding, and educating young children and fostering their development.” The most important aspect of ECEC is to keep children safe and well. Teaching and caring is related to NAEYC accreditation item two, “a curriculum that fosters all areas of child development”, and item three, “effective teaching approaches” (NAEYC, 2008, pp. 1-3). This priority was identified in the interviews with the PPN principal: “The priority in ECEC work is to handle the care work well.” It is essential for ECEC centers to watch over children’s safety and facilitate their development. Taiwanese CECA Act has a penalty system to enforce a safe environment for children, but this system requires strict enforcement by local authorities to ensure the safety of the children in preschools.

Most parents understandably prioritise children’s safety in preschool. As a member of the PK parents’ focus group commented, “For children in school, I feel that safety should be put first.” In recent years, several distressing and fatal accidents have occurred in Taiwanese preschools. For example, in two separate incidents in 2004 and 2005, a five-year-old girl and a three-year-old boy died from hyperthermia after being accidentally left on school buses for several hours due to the negligence of staff and the lack of safety standard operation procedures in the preschools (Lin, 2005). Therefore, preschools must ensure that standard operation procedures and checklists are utilised to closely safeguard children’s safety. Currently, the safety measures of some preschools are still inadequate for ensuring safety, and the government may need to monitor and guide the preschools to improve the safety of the children.

In addition to possessing the knowledge and expertise required to encourage child development, staff must be vigilant in their supervision of the children's safety at all times. Higher staff to child ratios may be required to ensure child safety by providing sufficient and qualified human resources. This may require that the Taiwanese government and the management groups of specific preschools share the financial burden of lowering staff-child ratios. In addition, for the safety of the children, preschool teachers should be screened before employment to ensure that they do not have a criminal record relating to child violence or sex offenses and can be trusted to care for children. Australian employment screening for ECEC is a suitable model for this process. Australian authorities require pre-employment screening for workers or volunteers in all child-related organizations to maintain child safety (Berlyn, Holzer, & Higgins, 2012).

### ***Teaching and Caring Issues and Cultural Influences***

In Taiwan, Confucianism underlies traditional cultural values, which are characterised by collectivism, tolerance of social hierarchy, and respect for education (Hofstede, 1997; Tran, 2013). Taiwanese values emphasise the importance of group harmony and respect for seniors in the family or society. As a result, Taiwanese culture has specific expectations for children in relation to public behavior and politeness, and most parents consider helping their children develop good attitudes and polite behavior to be part of the role of teachers (Hofstede, 2001; Low, 2010). In contrast, western cultures tend to value the development of independence, self expression, and autonomy as essential for their children; European and American parents want their children to learn self-reliance and self confidence in preschools (Yamamoto & Li, 2012).

The Taiwanese emphasis on politeness is revealed in the comments of a member of the PN parents' focus group related to the objectives of teachers: "Teach children politeness, good behavior, and a positive attitude to other people and to learning." Schools do lay emphasis on moral education, but this cannot come from the school alone, as it requires consistency and the cooperation of family and community (Richardson, Tolson, Huang, & Lee, 2009; Skaggs & Bodenhorn, 2006). Therefore, effective moral education of children in accordance with Chinese mores is likely to require effective communication between parents and teachers. Traditional cultural values may influence participants' concerns about quality and their criteria for assessing ECEC quality in preschools such as teacher quality, teaching and caring quality and workplace ethics, which are reflected in the priority areas covered in university courses and in-service training courses.

In addition to concern for manners, Taiwanese parents place great importance on their children's academic performance. Several parents expressed concern regarding whether preschool curricula can provide an adequate preparation for primary school skills such as proficiency with Mandarin Phonetic Symbols [注音符號] and basic numerical skills. Although government policy requires primary schools include these basic skills in the curriculum, most preschool parents expect the preschools to teach these skills in advance. For this reason, a reputation for effectiveness in this area is a major selling point for preschools. For example, a member of the PN parents' focus group commented: "the key point [the preschool] makes is that children here can quite easily adapt to primary school and their academic performances are quite good."



Parents with higher educational backgrounds, however, tended not to be so strongly concerned with the curriculum but rather expected children to enjoy their school life. One member of the PK parents' focus group, for instance, said "I hope he can grow up in a happy environment", and another stated "before primary school ... children should be happy and not have too much academic stress." It is possible that these parents' more privileged social position allow them to be more relaxed about their children's educational competitiveness. Allowing children to relax and enjoy themselves at preschool is certainly important, but clearly Taiwanese society in general expects preschools to provide some degree of preparation in basic academic skills. Thus, it is important that preschools teach children the necessary, basic skills to ensure their readiness for primary school. Adequate staff-child ratios are relevant to this issue; this will be discussed in Section 4.16.

### ***Male Teachers' Service in Preschool***

One obstacle to gender equality in ECEC work is the perception that male teachers represent a danger to students. Due to regular media reportage of sexual assault, parents in interviews expressed some anxiety about male teachers. A member of the PN teachers' focus group, for example, commented that "...if the child is male, it can be accepted, but if female, like my own daughter, I would probably worry about it." Other than pre-employment character checks for working with children, a way of addressing concerns regarding the danger of sexual assault by male teachers is to combine classes so that one class has two teachers, one male and one female. The female teacher could handle tasks requiring sensitive body contact with small female children. As a member of the PN teachers' focus group commented, "I hope he can work together with a female teacher, because he might need to help children to go to

the toilet and change clothes.” Such a system might do much to allay the concerns of parents. A further obstacle is the biased perception that continues to be widely accepted in Taiwan that males are by nature unsuited to providing care to children.

According to the PK principal, for example:

Females have comparatively careful characteristics. They have that sort of mothering nature which a male does not have. Parents might feel to some extent that male teachers do not have the characteristic of care.

Such responses reflect gender stereotypes that are common in Taiwanese society but which reflect a patriarchal model of conceiving work and family that does not align with the increased participation of women in the workforce that characterises modern Taiwanese society. Public education on changing gender roles might therefore be necessary. Although all graduates of teacher education institutes have training in understanding risk and the same safety, knowledge and skill level regardless of gender, many parents still have the impression that male teachers are not careful or gentle, and worry that might cause their children to be exposed to accident or harm. For example, one parent (from the PN parents’ focus group) claimed that “...[male teachers] are really not careful enough, so I couldn’t hand over my children to male teachers.”

These parental views reflect stereotyped impressions of men and women and their social roles and innate characteristics. In fact, men and women have equivalent capacities for care and nurturing, dependent on the quality of their training and learning opportunities. It is up to preschools to recruit and develop male teachers with the characteristics of carefulness and consideration. However, the problem of social perceptions remains, and changes to public attitudes to gender in Taiwan may be

necessary so that parents are willing to accept, trust and encourage male teachers to enter the ECEC sector.

On the other hand, research results also identified more positive attitudes to the participation of male teachers in ECEC. A member of the PK teachers' focus group suggested that male teachers could provide different teaching styles from those of female teachers and that both the children and the female teachers can benefit from the participation of male teachers in the ECEC industry:

Children can see and get to know the different sexes, male and female, and their teaching style might be different from that of female teachers. We can learn from their teaching style.

As well as providing alternative and important gender role models, another perceived advantage of male teachers, mentioned by several participants, is their greater physical strength and energy, which is perceived as making them more suitable for teaching physical and outdoor activities. The PN principal, for example, stated that "...male teachers are useful for many kinds of work – they are more physically capable of guiding outdoor activities, for instance."

In traditional societies, males are expected to work to support a family, but the low wages paid in the preschool industry are inadequate for this purpose. As a result, ECEC is an unattractive occupation to Taiwanese males. Private preschool salaries are not high enough for a man to support a family. Overcoming this problem may require changing notions regarding the financial responsibilities appropriate for each gender and improving remuneration and career pathways for preschool teachers. As a first step towards accomplishing this goal, the government might consider raising the pay of private preschool teachers to achieve parity with public preschool teachers.

Government subsidies for teachers' wages (discussed in more detail in Section 4.1.3) might also serve to attract male teachers to work in preschools.

#### **4.1.3 Government Policy**

All thirteen participant categories agreed that government policy was a key factor influencing the quality of ECEC in Taiwan. They clearly understood that government policy could affect the quality of their work and the overall care provided to children. The GO emphasised the critical importance of government policy in relation to quality care, focusing more on implementation and whether preschools comply with the regulations; she indicated that violations of the regulations regarding preschool enrolment quotas were downgrading quality. The GO did not agree with subsidizing private preschools, although it is possible that she felt inhibited about commenting on central government decisions and was merely reiterating current policy because she belonged to a local authority with responsibility for enforcing government regulations.

From data analysis, five distinct issues related to government policy and interventions in relation to ECEC quality were identified: the instability of government policy; government subsidization of schools and children; social justice objectives; the requirements of remote areas, and effective evaluation. The comments regarding government policy made by different participant categories had several similarities. Parents, teachers, principals, evaluators, and the GO agreed that in order to enhance ECEC quality, the government should subsidize preschools. Principals and parents suggested that preschool should be totally free. Teachers were aware of high SES families inappropriately receiving subsidies because they declare low incomes. Teachers also emphasised the importance of assisting preschools with guidance and funding to improve quality after evaluations. The GO and evaluators suggested that

government regulations should take into account the requirements of remote areas. Some issues were only raised by two participant groups. For example, evaluators and the PK teachers worried about the instability of government policy. All participant categories in the public preschool were concerned about staff-child ratios. This could be due to the fact that most children attending public preschools come from low or medium SESs. These children might be more difficult for staff to care for or teach.

### ***Unstable Government Policy***

Government policies clearly influence ECEC quality by setting standards and providing appropriate support. As the PK principal put it: “If government policies and regulations are complete, they can help to enhance ECEC quality.” However, government policies have changed frequently in recent years, causing uncertainty among preschool stakeholders. This concern was identified in the comment of Evaluator A: “The influence of unstable government policy and the free market on preschools affects staff’s career planning.” A member of the PK teachers’ focus group commented on the disruptive effects of continual policy change:

Primary schools are always making educational reform. In the beginning, we try to understand what courses we should increase, but it reforms again so the teaching quality is disrupted. For example, first they demand a constructive mathematical curriculum, and then change to a multiplication table curriculum.

Clearly, a higher degree of predictable and stable government policy pertaining to ECEC regulation and/or primary school care and education would be valued by teachers and principals. As the current frequency of reforms in early childhood education in Taiwan is recognized as problematic for industry by government evaluators themselves, it may benefit the entire sector if a predictable and limited

schedule of reform is agreed and observed over a defined period for future policy decisions in ECEC and primary education.

### ***Government Subsidies***

There is clear evidence from interviews that most interviewees prefer subsidization of schools rather than subsidization of families in order to enhance quality. Parents, teachers, principals, and the GO all suggested that a change in government policy from an approach that tends to subsidize parents to an approach that subsidizes preschools instead would enhance ECEC quality. For example, the PN principal commented “If you subsidize preschools, then ECEC quality can be enhanced, but not if you just subsidize the family.” Similarly, the PPN principal suggested government subsidies for preschools could be used to improve facilities or provide benefits to teachers to enhance quality.

The government introduced free tuition for preschool ECEC for children aged five in 2011, but preschools still collect monthly fees, enrolment fees and so on to generate income. A member of the PN parents’ focus group commented: “The preschools usually use different fee items to collect fees, such as monthly fees and enrolment fees.” These still constitute a heavy burden for parents because the government only subsidizes tuition by US \$500 per year for five year-old children, a sum that does not cover the entire cost of preschool. Thus, a member of the PN parents’ focus group suggested: “five year-old children should not have to pay fees.”

### ***Social Justice***

There was a strong perception expressed in the PN and PK teachers’ focus groups that an unfair tax system allows tax evasion to be commonly practiced by some families

and that tax evasion in turn leads to unfair economic advantage through illegitimate fee subsidization, particularly for those families who were self-employed in small business rather than wage and salary earners. As a member of the PK teachers' focus groups complained: "Rich people can get so much in subsidies because they do not pay tax." This issue of tax evasion is beyond the scope of this research, but it was a strongly expressed perception and reflects a lack of faith in the capacity of the current subsidization structure to deliver financial relief where it is actually needed. The government should perhaps consider more stringent auditing measures to monitor real family income to promote socially just outcomes for Taiwanese families using ECEC. An alternative solution might be to adjust the subsidization scheme so that it is not means-tested but provides financial relief to needy families by some other mechanism.

However, the provision of subsidies to disadvantaged families can only ease the burden of meeting living expenses and improve access; it is not directly concerned with enhancing ECEC quality. In addition, as the low-income criteria are quite strict, many low SES families are not eligible for low-income subsidies. The PK teachers' focus group suggested that government subsidies should be the same for all cities and counties. Some cities, such as Taipei, have a stronger economy that enables them to provide more subsidies for their ECEC, but smaller cities or counties have reduced funds and resources, so their ECEC subsidies are relatively low. In addition, higher living expenses for those living in urban areas are not taken into account. This state of affairs has provoked criticisms on the basis of social justice principles. Providing a national ECEC subsidy scheme could remedy this situation. The Queensland Government, for example, provides subsidies to preschool children of low SES

(Queensland Government, 2012: see Table 4.3, Appendix A1), and this could be a model for Taiwan. This scheme uses Economic Indexes for Areas to assess SES in relation to living expenses in different regions, thus delivering more equitable outcomes.

### ***Taking the Requirements of Remote Areas into Account***

The majority of interviewees mentioned uneven ECEC provision between urban and rural or remote areas, where services are undersupplied. Remote areas lack adequate ECEC facilities and preschool teachers. Because remote areas do not have sufficient human resource budgets or adequate facilities, preschools operate flexibly with the resources they have, which frequently leads to under-qualified and over-burdened staff, inadequate facilities and non-compliant standards of care.

Evaluator B suggested that these problems could be ameliorated by “...setting up more ECEC facilities so that they can get good ECEC, instead of subsidizing the children directly.” The optimal strategy may be a mix of approaches, simultaneously allocating more funds to subsidize children and setting up more ECEC facilities. Remote areas face the particular problem of a lack of preschool teachers, since preschool teachers are often unwilling to relocate to these areas. To address these problems, a case-by-case approach may be most effective. As the GO suggested, “In remote areas, the regulations regarding facilities and teachers could be applied flexibly if necessary.” Incentives such as extra remuneration to increase the number of preschool teachers in remote areas may be required. An example of such a policy is the Queensland government’s provision of extra subsidies for remote areas (as



determined by a standard index) of 50% of the usual rate (Queensland Government, 2012).

### ***Evaluations of ECEC Quality in Preschool***

The government operates a system of triennial evaluations to monitor ECEC quality and standards compliance in preschools. The interviewee comments regarding this system of evaluations of ECEC quality show commonalities in perceptions across different participant groups: parents, teachers and principals, for example, were concerned about evaluations generating a heavy workload for teachers, and principals and teachers considered post-evaluation improvement to be more important than the evaluation itself. Other concerns were only significant to one group. For example, parents thought that formal evaluation results might not capture the quality of ECEC in a complete sense and felt that such data provided only one of several possible reference points in choosing a preschool. Evaluators suggested evaluations should include more time to observe children. The GO perceived evaluations as providing preschools with guidance to correct shortcomings. From the data analysis, four distinct themes concerning evaluations of ECEC quality in Taiwanese preschool were identified: evaluation accuracy and effectiveness; post-evaluation improvement; evaluation time and frequency; and the burden of evaluation preparation.

From the parents' perspective, a key purpose of evaluations is to assist parents in assessing the quality of local preschools so that they can make an appropriate choice. A member of the PK teachers' focus group considered evaluation reports to be a major factor in preschool choice: "When you pass the evaluation and you put out a poster announcing the results, parents continuously come to visit so the recruitment of

children is not a worry.” On the other hand, responses from parents suggested that evaluation results need to be supplemented with other sources of information in order to make an informed choice. A member of the PPN parents’ focus group, for example, said: “The evaluation results can be a reference to choose a preschool, but parents need to observe preschools for themselves to make good decisions.”

In order to fulfill the purposes of assisting parents in preschool choice, encouraging best practice, and ensuring that minimum standards are maintained, evaluation results must be an accurate and reliable reflection of ECEC quality. As a member of the PK parents’ focus group commented, “Evaluations are in vain, if they become a mere formality.” Thus, evaluations are effective only if preschools actually implement the recommendations and requirements flowing from the review in the daily routine of the preschool. Participants suggested that in order to be effective, evaluations should focus on what actually occurs inside the preschool, such as the interaction between teachers and children, not just on checking paper work. One way to do this, according to several participants, is to make use of unscheduled audits to prevent preschools from focusing on audit preparation rather than the improvement of ECEC quality. A further problem is that evaluations are carried out by academics with little direct contact with the ECEC industry. Evaluator B suggested that recruitment of evaluation team members “...might not only consist of scholars from academic institutions but also include senior persons in the ECEC industry.”

A further purpose of evaluations is to provide feedback to preschools regarding areas in which they should improve. After an evaluation, then, it is imperative that schools correct the shortcomings identified in the evaluation. As a member of the PPN teachers’ focus groups states: “The improvement after evaluation is probably more

important than the evaluation itself.” In order to ensure that evaluations and consequent recommendations are followed through, the government encourages preschools to apply for guidance in addressing shortcomings identified by the evaluations but should perhaps go further by introducing progress reports every six months and providing government support where necessary to facilitate recommendations for change.

The frequency of evaluations (once every three years) was considered adequate given the available human resources of the MOE and MOI and the evaluation-related workload created for preschools in preparing for evaluations. However, it was suggested by principals, teachers and evaluators themselves that the evaluation duration time is too short to properly observe the teaching methods and interactions between teachers and children. In addition, the time taken to prepare documentation and presentations for evaluations was identified in most interviews as inhibiting the work of teachers. For example, a member of the PK teachers’ focus groups stated: “Evaluations are hard work for teachers”, a member of the PK parents’ focus group commented: “When preparing for an evaluation, the workload might make it hard for teachers to take care of children properly”, and a member of the PN parents’ focus group complained that due to evaluations, teachers were too busy to have time to communicate with them:

There is too little communication with us. Really, I feel that the teacher wants us to leave quickly because he is so busy with evaluations.

It is clearly counter-productive for evaluation processes to interfere with the delivery of quality care. It is counter-productive if evaluation itself inhibits the work of teachers. Participants’ comments coincide with the suggestions of other researchers to

minimise the workloads for teachers in Taiwanese schools (Chen, 2004; Lee, 2010). Because of an onerous preparatory workload associated with evaluations, they were deemed to be intrusive, disruptive or unnecessary, outcomes that are not aligned to the purpose of the evaluation policy and practice. A review of the evaluation process that seeks to minimize preparatory work by the preschool and assure follow through implementation of recommendations would be welcomed by principals, teachers and parents.

### ***Improving Government Policy***

The integration of nurseries and kindergarten into preschools took effect on 1 January, 2012 and the re-alignment processes continue in the sector in 2013. Evaluator B worried that there may be insufficient human resources within the MOE or local government to take care of the greater workload after integration. Thus, it may be necessary to assign additional human resources in the MOE to the handling of preschool matters to effectively implement government policy to improve ECEC quality. In addition, participants commented that government policy is unstable and does not fit the expectations of stakeholders in ECEC. Therefore, it was suggested in the PK teachers' focus group that the design of the government policy should include "...a professional preschool teacher as a representative of the industry and university professors to jointly design the development of childcare and education." It was felt that a more widely consultative approach to policy review and design may contribute to more successful and sustainable decisions for the industry.

Improvements in policy regarding remote area ECEC, teachers' pay and benefits, preschool subsidies, staff to child ratios, inclusion of preschools in national education

policy, and in setting up additional ECEC centers were recommended. It was suggested that government subsidies for parents might relieve the burden of many families, but would not greatly enhance ECEC quality. The PN principal, for example, declared that “subsidies will surely not be used for education but on living expenses instead.” Similarly, the PPN principal suggested that to enhance ECEC, it would be better to subsidize preschools and teachers than to subsidize parents directly:

I feel that subsidizing preschools is the only way to enhance ECEC quality or to subsidize personnel expenses. When the benefits and pay is improved, the service quality can improve. I feel that doing it this way is better than subsidizing parents.

The PN principal suggested “...government subsidies for low-income families cannot catch up to preschool fees, so it’s better to make ECEC free.” In fact, the best approach may be a mix of strategies. The government could provide more diverse funding options to subsidize not only parents but also preschools and teachers. Subsidizing preschools can improve their facilities, and subsidizing teachers can enhance teacher quality. Both can contribute to the improvement of ECEC quality. In contrast, subsidizing parents may be less effective because of the risk that parents will spend the subsidies on non- ECEC-related living expenses and/or may falsely declare income. It may therefore be necessary to link preschool subsidies with a reciprocal obligation to improve structure and process quality.

To enhance ECEC quality, many countries have included five year-old children in the national education system. This policy of free tuition for 5 year olds children launched in 2011 (Chiu & Wei, 2011). But participant responses suggest that the burden of parents for ECEC is still too high, the government may use the CCB and CCR of Australian model to reduce the burden of parents (Department of Education,

Employment and Workplace Relations, 2010). The financial subsidization of preschool is a topic that is central to perceptions of effective government policy and is considered imperfect by those working in the sector or depending on preschools for ECEC in Taiwan (Lin, 2007). The expenditure for Taiwanese preschools too low, it was 3.44 percent of the total education budget, compared with 26.52 percent for primary schools (MOE, 2012 – see Table 2.11). Thus, government should increase expenditure on preschools to improve their quality.

#### **4.1.4 Parent-Teacher Communication**

Parents and teachers identified communication between all five participant group categories of principals, teachers, parents, evaluators and GO as a significant issue in ECEC quality. It is apparent that they are quite concerned about this issue; for example, they thought that improving communication would be a good way of reducing friction between parents and teachers over teaching and caring styles and resolving different ideas about children's eating habits. Teachers' communication with parents helps to keep them informed of their children's needs and was perceived as an essential issue in improving the quality of ECEC by Taiwanese parents in this research project.

Communication can be either a one-way or two-way exchange. When teachers want to inform parents of school activities, events, and children's progress, they can select from a range of one-way communication modes: newsletters, a contact book or report cards. To exchange ideas on some issues, there is a need for two-way communication, including telephone calls, meetings, and home or school visits. It is evident from

interviews that whilst one-way communication modes exist in Taiwanese preschools, opportunities for two-way communication are limited.

Research has found that cultural and language differences and time constraints may cause misunderstanding between parents and teachers (Colombo, 2004; Taffel, 2001). Lawrence-Lightfoot (2004) contends that many teachers do not know how to communicate effectively with parents because they are not trained in communication skills. Caspe (2003) suggests that teachers' professional learning programs should include communication skills to assist teachers to take advantage of varied communication opportunities and develop strategies to facilitate more efficient communication with parents. It is important to be able to communicate with children's parents and keep the parents informed through a range of media options such as contact books, telephone calls, email, instant messenger technology, blogs, and social web sites such as Facebook as well as face-to-face.

The problem of communication between teachers and parents was identified in an interview with Evaluator C: "Nursery teachers feel they have no problems in caring for children, but that the big problem is how to communicate with parents." Moreover, in the context of declining fertility and more one-child families, many interviewees noted that parents tend to make more requests of teachers, and this might sometimes cause problems for teaching quality due to lack of parental experience-based expertise in caring and lack of knowledge or experience of teaching. For example, a member of the PK teachers' focus group commented that "Parents will make more requests, which might cause problems with teaching quality due to parents' lack of expertise." Teachers also mentioned that they sometimes encountered different opinions on

ECEC among family members including grandparents and that this could cause tensions for parents and their children.

Good communication can develop a tighter partnership between parents and the school to support better child development. In contrast, poor communication with parents might result in poor learning outcomes and inappropriate or unruly behavior by children since many issues need shared understanding and cooperation between schools and families. As there appear to be little provision for meaningful engagement with parents via varied communication opportunities in Taiwanese preschools, providing such opportunities can significantly improve parent/customer satisfaction with preschools and develop commercial advantage for ECEC facility owners and managers who are prepared to invest in these options.

### ***Improving Parent-Teacher Communication***

Many teachers have problems in communicating with parents. Good communication with parents and educating them about ECEC issues might help to address this issue. Teachers should learn how to develop good communication and relationships with parents. Teachers might be encouraged to take communication courses to improve their skills. Other solutions that might address these problems include intruding parents' committees, open days, in-school parties, and encouraging parents to work in some capacity on occasions to help the center. A plan to encourage this by allowing fee reductions for parents who work regularly to improve the grounds/facilities or undertake other useful tasks could be considered. Teacher-parent communication, a matter of serious concern among teachers and parents, could be improved over the long term by setting up a parent committee. The parent committee can play an



important role in the school by acting as a channel for communication between preschools and parents (Adams & Owens, 2008) and promoting collaborative efforts enhancing the school as a community rather than a service center. It could provide feedback for the school about how to improve the quality of ECEC, and help the school to organize events. Adams and Owens (2008) propose a parent committee model that could be a reference for Taiwanese preschools. The model includes two types of parent committees: parent management committees and general parent committees. These two committees work alongside and in conjunction with preschool management. Such arrangements are perceived to offer important benefits to the Taiwanese preschool sector and community by a range of stakeholders.

#### **4.1.5 Principals' Leadership**

Research indicates that good leadership by principals can enhance the climate of the school and teachers' morale (Kelley, Thornton, & Daugherty, 2005; Whitebook, Ryan, Kipnis, & Sakai, 2008). On the other hand, poor leadership can cause low teacher morale and lead to high teacher turnover, an issue that was identified in the interview with the PPN teachers' focus group: "I don't think I can accept this [high teacher turnover] because it is probably due to the poor leadership of the principal." Principals' leadership was identified as a major factor in ECEC quality by principals, teachers, parents, and evaluators. These four groups have direct and rich experience of how principals' leadership affects the management and quality of the school. Research has shown that the leadership style of school principals plays an important role in influencing the motivations and capacities of teachers and makes a difference in student performance (Clark, Martorell, & Rock off, 2009; Pont et al., 2008; Seashore-Louis et al., 2010). Good leadership can motivate staff to perform their work well.

Leithwood, Louis, Anderson, and Wahlstrom (2004) identify setting directions, developing people, and supporting the performance of administrators, teachers, and students as key elements of principals' leadership. Louis, Leithwood, Wahlstrom, and Anderson (2010) contend that collective leadership has more influence than individual leadership on student achievement. They argue that collective leadership (the influence of school staff and other stakeholders on school decision-making) can improve staff commitment and student achievement. In the interviews, all participant groups expressed a desire for principals to engage collaboratively with staff and adopt a collective leadership style involving communication with and encouragement of teachers. For example, a member of the PK teachers' focus group commented that "I feel that principals should hold meetings to communicate with teachers."

In the context of low fertility rates, some preschools might find it increasingly difficult to recruit enough students to sustain their centers. The PN principal predicted that "Parents will expect more quality, so the bad will be eliminated; that is, preschools that don't teach well will be eliminated." As a result, preschools in areas of declining populations or preschools with poor reputations for quality might close. The PPN principal suggested "To survive and adapt to the low fertility rate environment, you have to find out where your orientation is." Evaluator A commented that "Some preschools might adopt the Red Ocean strategy [competing on price] and lower their tuition and other fees to attract parents to attend", and noted that this could downgrade their quality. There may a further option to differentiate a preschool by quality through the development of a more inclusive/collective format of management and leadership through greater exploitation/inclusion of the capacities of teachers and parents in decisions related to ECEC.

It was clear from these interviews that there is some anxiety in regard to continued demand for ECEC services in the context of declining fertility and an expectation that ECEC centers will need to clarify their market orientation and strategies for business retention and growth in this market. Comments from some of the teachers, parents and evaluators indicate that there is a perception that some principals are primarily focused on profit at the expense of quality of care. For example, Evaluator C commented that “Principals who lack understanding of educational philosophy will tend to cater to the parents.”

This focus on profit is perceived as inappropriate and understood to be a problem especially in cases where principals are not educated in ECEC themselves. Several interviewees suggested that the principals should concentrate on providing good service quality. For example, a member of the PK teachers’ focus group commented that “If principals have graduated from an ECEC-related department, they might believe in doing everything for the children’s good.” The participant presumably expected principals should have a specific ECEC education background. It is evident that principals who have qualifications and regular in-service training to develop their knowledge, attitudes and skills relevant to ECEC and who are able to work collaboratively with staff are valued in the sector and have the potential to impact positively and powerfully on quality.

#### **4.1.6 Staff to Child Ratios**

Research indicates that staff to child ratios can affect teacher effectiveness and care quality (Wang & Shen, 2011; Whitebook, 1995; Whitebook et al., 2009). Low staff to child ratios allow teachers little time for individual child interactions, which can enhance children’s language and social skills. Most of the participants highlighted the

importance of staff-child ratios [1: 15 for age three to six class] in relation to ECEC quality. In particular, parents and teachers personally experienced the critical importance of staff-child ratios, and many reported that it was difficult for staff to care for so many children. Participants working in public preschool contexts were most concerned about staff-child ratios, perhaps because the less privileged SES backgrounds of the majority of children in these schools made it more difficult for teachers to support children effectively.

It is understood in the ECEC industry across the globe that staff-child ratios affect the quality of care. The NAEYC (2013) suggests a staff-child ratio standard for 2.5-4 year-old and 4-5 year-old children of 1:9 and 1:10 respectively. In Taiwan, the regulations regarding staff-child ratios for three-six year-olds mandate a ratio of 1:15. The figure is comparatively high and makes it difficult for ECEC staff to care for children well. As a member of the PK parents' focus group stated, "There's quite a difference in the feeling of a classroom when a teacher is looking after ten compared with looking after fifteen."

The high proportion of one-child families in Taiwan means that children are often highly indulged in the home and may have related social difficulties, so that teachers need to expend more effort to care for them (Jang, 2007). Staff-child ratios appeared to be a serious concern in interviews, where teachers worried that they are hardly capable of caring for fifteen children at a time, and parents were concerned that teachers might not be able to provide adequate care under such circumstances. It was suggested that staff-child ratios should decrease to 1:10, although principals believed that preschools would not be able to afford the financial costs of such a change. The

extra costs involved could be offset by means of government subsidies (as mentioned in Chapter Two), since the Taiwanese government's preschool budget is far lower than elementary school budgets.

In Taiwan, regulations specify that staff-child ratios for 3-6 year-olds should not fall below 1:15. It is very difficult for a teacher to care for fifteen children well. Low staff to child ratios tend to reduce the quality of care and education, and depress the morale of teachers. It was suggested by the teachers' focus groups that adjusting the staff to child ratio to 1:10 from the current 1:15 will enhance quality, but these participants also worried about whether parents could support the extra expense. For example, a member of the PPN teachers' focus group commented:

They should try to see if the staff-children ratio can be decreased to 1:10. But in order to survive, private preschools have to increase the monthly fees, and that needs the parent's support.

Participants commented that it was difficult to manage the class with the current staff-child ratio 1:15 of government regulation, and this also downgraded the ECEC quality. An increase in the staff to child ratio could be achieved in those preschools that ensure high quality through high fees and recruit the children of wealthy families. But in general, government subsidies are necessary for most preschools if the staff-child ratio is to be increased. A creative and collaborative consideration of mechanisms that may support an improved staff-child ratio should be considered by the sector with government consultation. There is recognition in the sector that staff to child ratios are too low in Taiwan and a willingness among staff, parents, management and government to resolve this issue through a range of possible strategies. The challenge is to engage in exploratory implementation of possible solutions to staff to

child ratios in order to generate evidence-based rationales for sector-wide and sustainable reform.

#### **4.1.7 Physical Environment**

Principals, teachers, and parents identified the physical environment as significant to ECEC quality. Parents of private preschools were more concerned about children's safety, a concern that was not mentioned by parents of children in the public preschools. The factors of safety, space and facilities were identified as related to each other and as important in ECEC quality. These factors can be attributed to the structural elements of the physical environment. Preschools need to provide adequate space and good facilities for children to play, learn, and grow, but safety was understandably seen as a key priority. As a member of the PK parents' focus group commented:

The most important thing is safety, and whether children's needs are taken into account. Take the toilets, for example – are they designed according to the children's needs?

Another member of the PK parents' focus group commented: "Safety should be put first: that is, children's activity spaces should be safe." Safety is thus related not only to the quality of care, but also to the physical environment provided for children.

Safety, space and facilities were identified as important structural elements in ECEC quality. When parents visit preschools, their first impression is of the space and facilities. The PN principal commented that "Nurseries should have good facilities", and "...facilities should look good and safety should be given first priority." But most public nurseries use community centers, so their space and facilities are limited. The

GO commented that “There are limitations on how these can be improved, and secondly, they cannot make big improvements with a limited budget.” The owners of nurseries see that the low fertility rate is causing the number of children to decrease and may hesitate to invest in expensive changes to space and facilities because they feel that they will not receive an adequate rate of return. This, in turn, can impact on ECEC quality in relation to physical environment. Although adequate space and facilities to play and learn are important features of the preschool physical environments, the safety of the physical environment is critical and cannot be subject to concerns over returns on investment. In order to ensure safety of children in a declining sector, government subsidies may be necessary to encourage preschools to improve their space and facilities primarily in relation to assuring safety but also, where possible in relation to improving quality. The government should also closely monitor the preschools’ safety, space and facilities according to regulations.

#### **4.1.8 Summary of the Key Factors Affecting ECEC Quality**

The seven key factors in ECEC quality from the perspectives of the thirteen participant groups were identified as teacher quality, teaching and caring, government policy, parent-teacher communication, principals’ leadership, staff-child ratios, and physical environment. The majority of the participant groups considered the top three priorities to be teacher quality, teaching and caring, and government policy. Principal groups also focused on physical environment while both teacher and parent groups also put emphasis on the need to improve parent-teacher communication and principals’ leadership. All preschool-based groups agreed on seven key factors influencing ECEC quality. Sector-wide groups agreed on six factors, excluding physical environment reflecting fairly strong alignment in the concerns about ECEC

quality in Taiwanese preschools across varied sector interest groups. All groups agreed that raising teachers' pay and benefits, increasing the staff ratio, holding in-service training for parent-teacher communication and principals' leadership, and providing an adequate and safe physical environment would improve ECEC quality. In addition, it was suggested that for the sake of equitable treatment of all citizens, the government should put more ECEC places and preschool teachers in remote areas. A summary of the suggestions for improving ECEC quality from participant groups is illustrated in Table 4.4 (Appendix A1).

## **4.2 Key Factors Influencing Career Opportunities**

Key factors influencing career opportunities from the perspectives of the thirteen participant groups are listed by frequency of occurrence in the interview transcripts in Table 4.5 (Appendix A1). The English term “pay and benefits” refers to the salary and benefits of teachers, which correspond to three different Chinese terms used by participants in the interviews: “薪資”, “薪水”, “起薪” and “福利”. Each mention of these Chinese words in reference to pay or benefits was counted as an instance of the “pay and benefits” theme. The theme of “working environment” in the interviews was counted with reference to the Chinese words “工作環境” or “工作氣氛” (both translated as “working environment”) and “工作時間”, “工作壓力”, and “加班” (translated as “work load”, “stress” and “overtime”). The frequency of “Professional learning” in the interviews was counted with reference to the Chinese terms “進修” (“continuing education”), “研習” (study) and “訓練” (training).

Through interviews, the following five issues were identified by participants as key factors impacting on career opportunities for preschool teachers in Taiwan: pay and



benefits, working environment, professional learning opportunities, parent-teacher communication, and principals' leadership. A comparison of the number of participant groups mentioning key career opportunities factors is illustrated in Table 4.6 (Appendix A1). Pay and benefits was prioritized as the key issue affecting career opportunity by all thirteen participant groups with the majority of participants prioritizing this issue above all others. Working environment was mentioned in twelve out of the total of thirteen groups except the PPN parents' group. Principals' leadership was mentioned in only nine groups. This suggests that principals' leadership has a lower priority than other factors. Thus, the priority factors in career opportunities as measured by the number of participant groups referring to them are ranked in the following order: pay and benefits, working environment, professional learning opportunities, parent-teacher communication, and principals' leadership. Five themes in total emerged in the responses of all participant categories.

#### ***Key Factors with the Participant Groups in Public Nursery***

The priority given to factors influencing career opportunities with the perception of the PN participant groups are shown in Figure 4.18 (Appendix A2). The interviewee comments on key factors influencing career opportunities in preschools show some common themes in the data across different participant categories. The principal, teachers and parents mentioned four, five, and four factors respectively. The principal, teachers and parents were in agreement that the top priority factor was pay and benefits and they placed stronger emphasis on this issue as related to career opportunity than any other participant group. The principal and teachers considered the second key factor to be professional learning, but parents did not mention it, instead considering working environment as the second key factor.

The key factors influencing career opportunities as perceived by the PN principal, teachers, and parents are shown in Figure 4.19. All three PN groups were in agreement that pay and benefits, working environment, and principals' leadership were essential factors. The fact that the principal, teachers and parents all identify these three key factors may be connected with concern for the teacher's pay and working environment and with the importance for teachers of having the principal's support. The PN seems to place greater emphasis on these issues than the other groups. PN teachers are increasingly annually contracted employees, recruited by means of a new policy (2008) whereby the government has stopped employing PN teachers through national examinations and only recruiting staff with annual contracts. The salary of annually-contracted employees is low and these teachers lack security in their careers. These conditions may help explain the strong emphasis on pay and benefits within the PN community of this research sample.

The principal and teachers agreed that professional learning was a key factor. PN staff are encouraged to take in-service training on work days, and PN staff appear to value their opportunities for professional learning. It is likely that the existence of this policy is made possible by government subsidies for teachers' in-service training, which are available for the PN but not for the PPN and PK. Parents did not mention professional learning as a factor, presumably because it is not a key priority for them. Teachers and parents were in agreement that parent-teacher communication was an important factor, while the principal did not mention it, presumably because the principal usually is not directly involved in communication with parents. Teachers and

parents in the PN interviews expressed a desire to have the principal's support to improve communication.

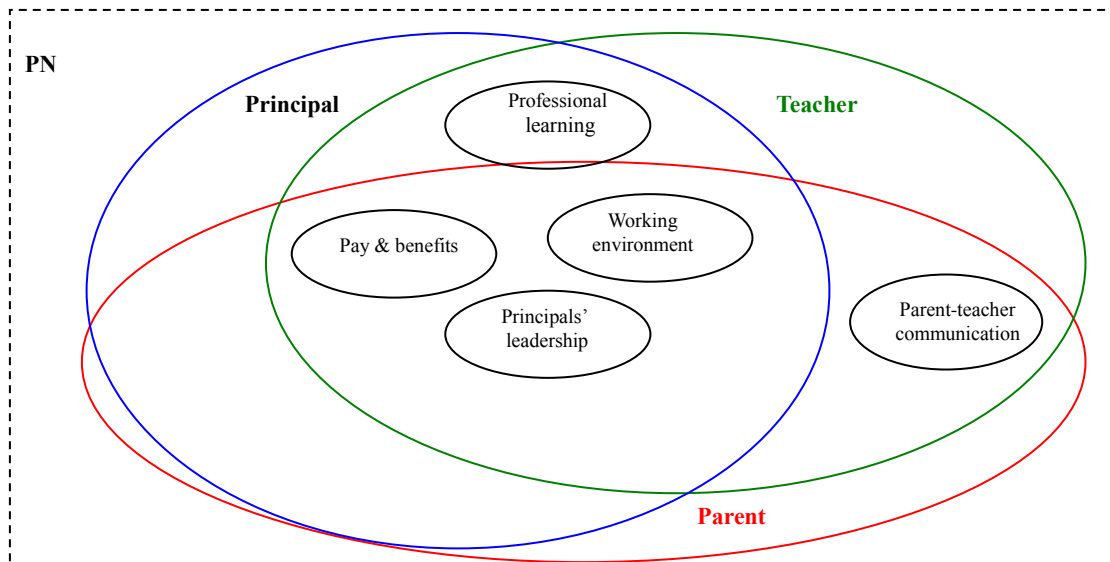


Figure 4.19. Venn diagram indicating the key factors influencing career opportunities from the perspectives of PN participant groups.

### ***Key Factors in the Privatized Public Nursery Participant Groups***

The priority given to factors influencing career opportunities as perceived by PPN participant groups are shown in Figure 4.20 (Appendix A2). The principal, teachers and parents mentioned four, five, and three factors respectively. Unlike in the PN group, the principal, teachers and parents disagreed regarding top priority factors, with professional learning, pay and benefits, and parent-teacher communication as top priorities respectively. The principal and parents considered the second key factor to be pay and benefits, but teachers did not mention it, instead considering working environment as the second key factor. Overall, each PPN participant group placed less emphasis on each of these items than the PN group, as evident from frequency of mention. This perhaps implies a lower level of concern than within the PN group. The key factors influencing career opportunities as perceived by the PPN principal, teachers, and parents are shown in Figure 4.21. All three PPN groups were in

agreement that pay and benefits and parent-teacher communication were essential factors. The principal and teachers agreed that working environment and professional learning were significant factors, and teachers and parents agreed that principals' leadership was a crucial factor.

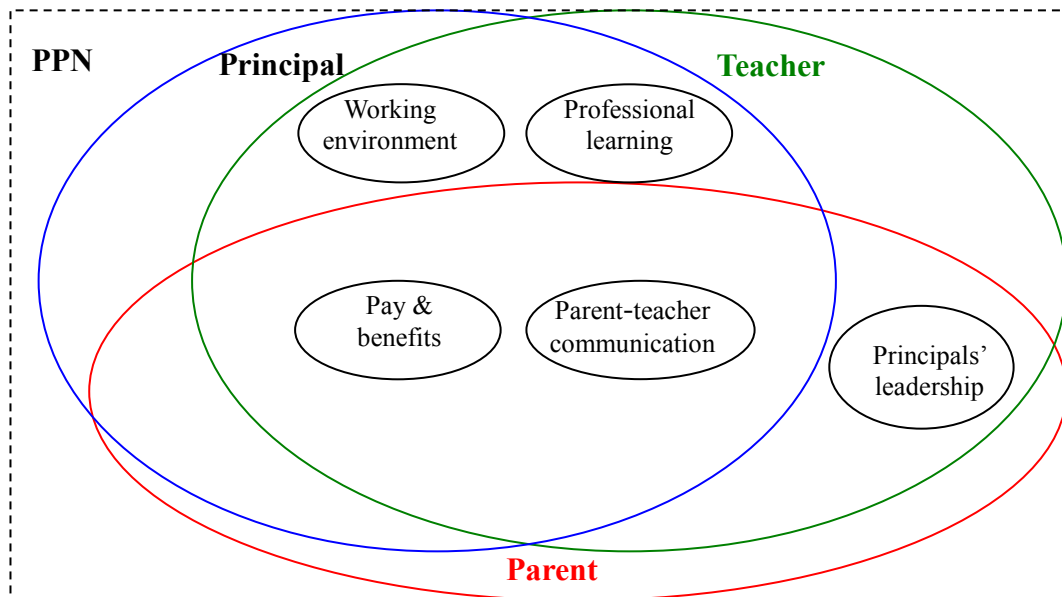


Figure 4.21. Venn diagram indicating the key factors influencing career opportunities as perceived by the PPN participant groups.

### ***Key Factors in the Private Kindergarten Participant Groups***

The priority given to factors influencing career opportunities as perceived by PK participant groups are shown in Figure 4.22 (Appendix A2). The principal, teachers and parents all mentioned five factors. The top priority factor was pay and benefits for all participant groups. The second priority was working environment for the principal and parents, but principals' leadership for parents. The key factors influencing career opportunities as perceived by the PK principal, teachers, and parents are shown in Figure 4.23. All three PK groups were in agreement that pay and benefits, working environment, professional learning, principals' leadership, and parent-teacher communication were essential factors. The fact that the principal, teachers and parents all identify these five key factors may be connected with the fact that this PK is a

private kindergarten providing high-quality care. The principal, teachers, and parents all have a good understanding of ECEC quality and are all concerned about teachers' career opportunities, which they believe can influence the ECEC quality of their school. Parents in this group placed particularly high priority on pay and benefits as reflected by frequency of mention.

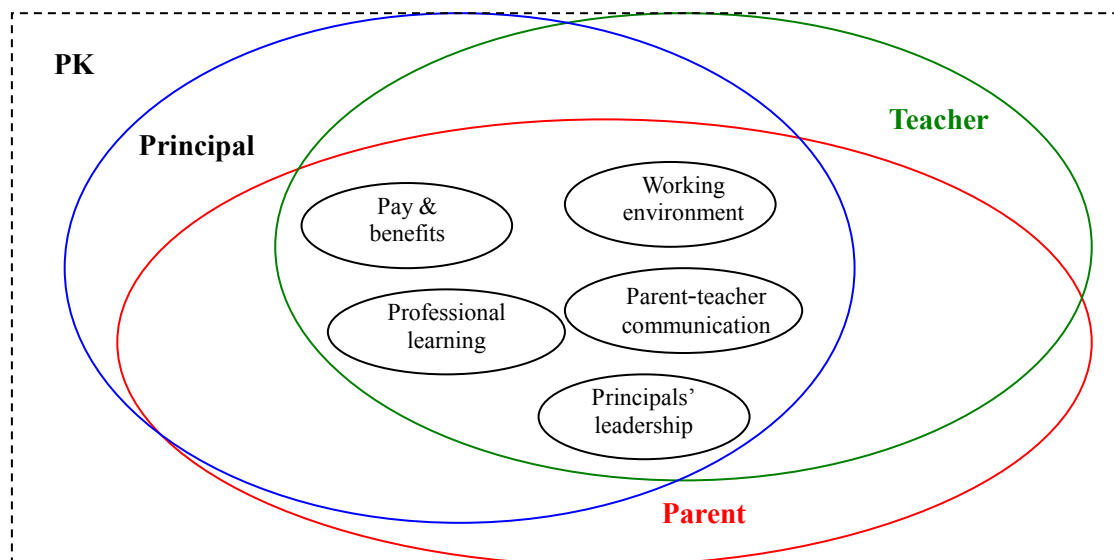


Figure 4.23. Venn diagram indicating the key factors influencing career opportunities as perceived by the PK participant groups.

### ***Key Factors in Career Opportunities according to Principals***

The priority given to factors influencing career opportunities factor by the principals in the three preschools is shown in Figure 4.24 (Appendix A2). There was no agreement on the top two factors influencing career opportunities among the principals of the three preschools. The top priority for the PN and PK principals was pay and benefits, but the PPN principal considered professional learning to be most important. The second priority factor for PN and PK parents was working environment, but for PPN parents was pay and benefits. The third priority factor for the PN and PPN principals was working environment, but for the PK principal was parent-teacher communication. The key factors influencing career opportunities as perceived by the principals in the three preschools are shown in Figure 4.25. The

principals agreed that pay and benefits, working environment, and professional learning were major factors. The PN and PK principals agreed that principals' leadership was an important factor. The PPN and PK principals agreed that parent-teacher communication was a key factor.

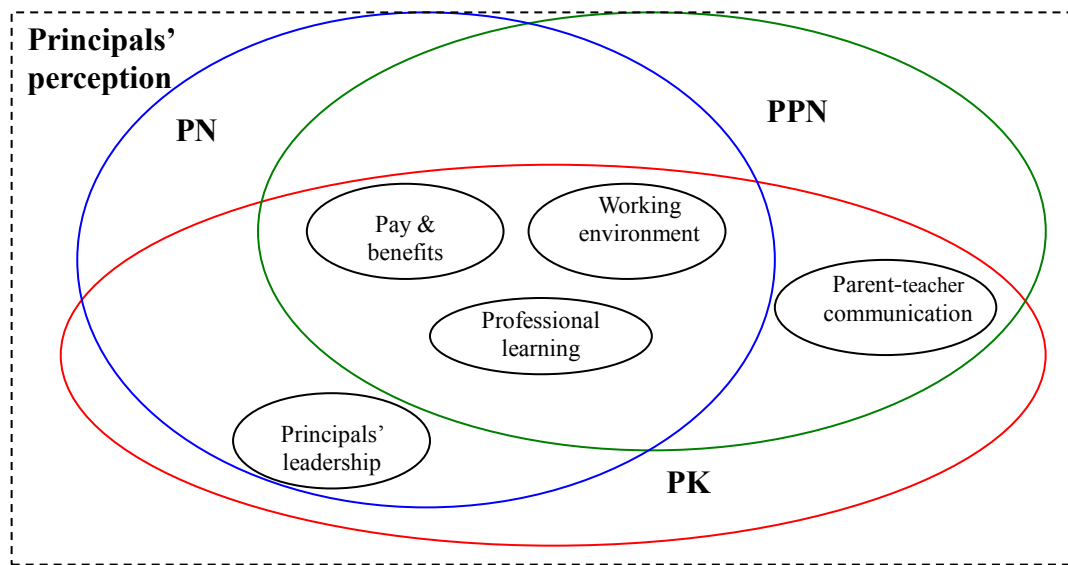


Figure 4.25. Venn diagram indicating the key factors influencing career opportunities as perceived by the principals in three types of preschool.

### ***Key Factors in Career Opportunities according to Teachers***

The priorities given to factors influencing career opportunities factor by the teacher groups in the three preschools are shown in Figure 4.26 (Appendix A2). All three teachers groups were in agreement that the top factor influencing career opportunities was pay and benefits, but there was no agreement on the second priority factor. The second priority factors for PN, PPN and PK teachers were professional learning, working environment, and principals' leadership respectively. The third priority factor for PPN and PK teachers was professional learning, but PN teachers had parent-teacher communication as their third priority instead. The key factors influencing career opportunities as perceived by the teacher groups in the three preschools are shown in Figure 4.27. The three groups were in complete agreement concerning these

key factors, which were pay and benefits, working environment, professional learning, principals' leadership, and parent-teacher communication.

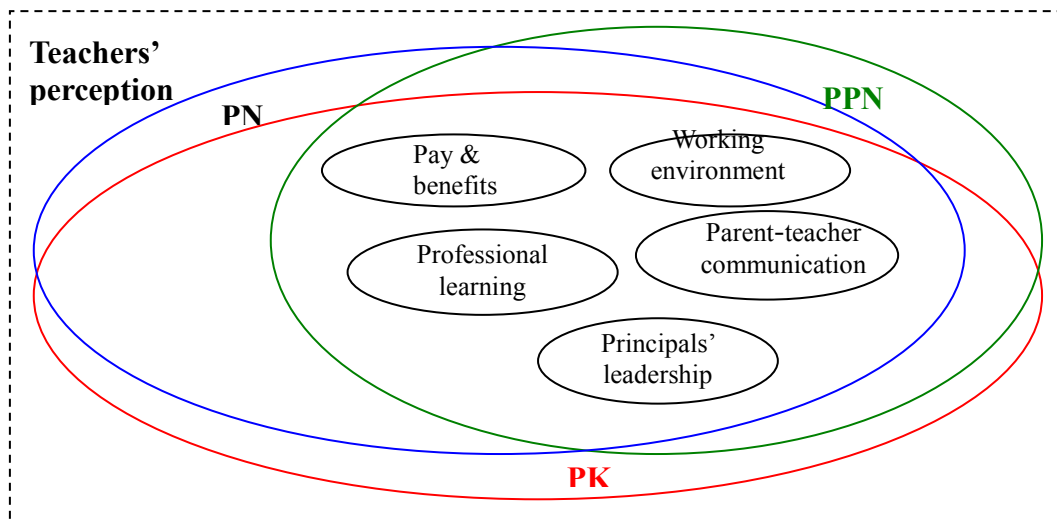


Figure 4.27. Venn diagram indicating the key factors influencing career opportunities as perceived by the teacher groups in three types of preschool.

### ***Key Factors in Career Opportunities According to Parents***

The priorities given to factors influencing career opportunity factor by the parent groups in the three preschools are shown in Figure 4.28 (Appendix A2). The parent groups differed significantly regarding the top two priorities for career opportunity. The top priority for PN and PK parents was pay and benefits, but PPN parents considered parent-teacher communication to be most important. The second priority factor for PN and PK parents was working environment, but for PPN parents was pay and benefits. The third priority factor for PN and PK parents was parent-teacher communication, but principals' leadership for PPN parents. The key factors influencing career opportunities as perceived by the parent groups in the three preschools are shown in Figure 4.29. The parent groups agreed that pay and benefits, principals' leadership, and parent-teacher communication were essential factors. The PN and PK parent groups agreed that working environment was a major factor. Only the PK parent group mentioned professional learning as a key factor, presumably they

were quite concerned about whether PK teachers could have opportunity for in-service training. Enabling PK teachers to take in-service training is a critical issue which may require the common efforts of government and preschool to resolve.

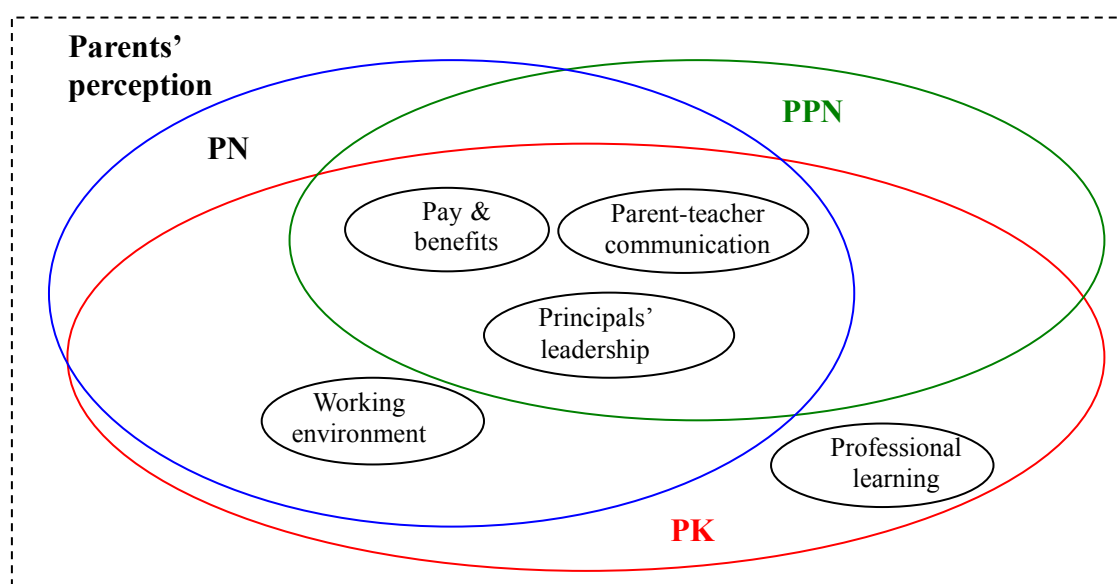


Figure 4.29. Venn diagram indicating the key factors influencing career opportunities as perceived by the parent groups in three types of preschool.

### ***Key Factors according to Evaluators and the Government Official***

The priorities given to factors influencing career opportunities factor by evaluators are shown in Figure 4.30 (Appendix A2). All evaluators agreed that the top priority factor was pay and benefits, although there was a difference in emphasis placed on the this issue as reflected in frequency of mention, with Evaluator A mentioning pay and benefits almost twice as many times as Evaluators B and C. This may be due to the different educational background and work experience of these evaluators. Evaluator A is performing evaluations of teaching and care areas, whilst Evaluator B is performing evaluations of environment and safety areas. Therefore, Evaluator A may place more focus on issues related to teachers such as pay and benefits. Both Evaluator A and Evaluator C considered professional learning to be the second priority, but Evaluator B's second priority was working environment. The key factors



influencing career opportunities as perceived by evaluators are shown in Figure 4.31. The participants in the evaluator category identified five key factors. All evaluators agreed that pay and benefits and working environment were key factors. Both evaluator A and evaluator C considered professional learning a key factor. Only evaluator C thought principals' leadership and parent-teacher communication were essential factors. The factors considered by the GO to influence career opportunities are shown in Figure 4.32 (Appendix A2). The GO considered the priority factors influencing career opportunities to be pay and benefits, professional learning, working environment, and parent-teacher communication, but did not mention principals' leadership. Low pay was emphasized by the GO, but without explicitly stating who should be responsible for correcting this issue.

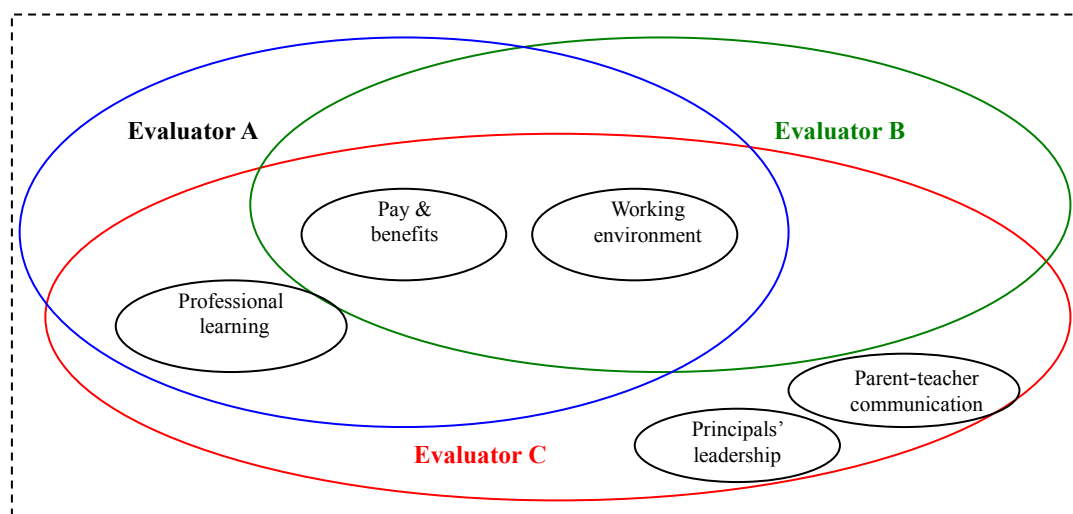
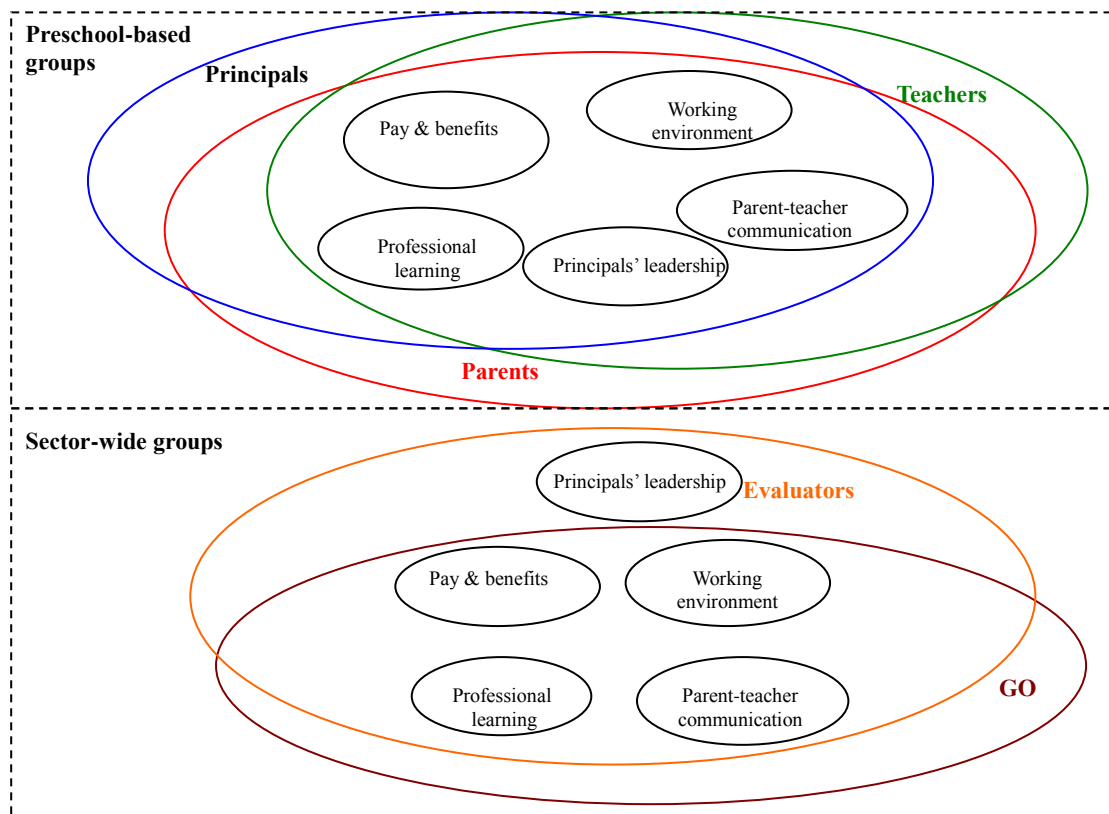


Figure 4.31. Venn diagram indicating the key factors influencing career opportunities as perceived by evaluators.

### ***Key Factors for the Preschool-based Groups and Sector-wide Groups***

Figure 4.33 compares the perceptions of key factors influencing career opportunities between preschool-based groups (principals, teachers, and parents) and sector-wide participant groups (Evaluators and the GO). Preschool-based groups agreed that five

key factors influence ECEC quality: pay and benefits, working environment, professional learning, parent-teacher communication, and principals' leadership. Sector-wide groups agreed on four factors: pay and benefits, working environment, professional learning, and parent-teacher communication. Preschool-based groups expressed concern regarding all five factors, while the GO did not consider principals' leadership to be a priority. This difference may be due to the fact that teachers have direct experience of the effects of principals' leadership. This mismatch between the perceptions of government officials and teachers may have a negative impact on the formulation of government policy, resulting in neglect of the factor of principals' leadership.



*Figure 4.33.* Venn diagram indicating the key factors influencing career opportunities as perceived by preschool-based groups and sector-wide groups.

#### **4.2.1 Pay and Benefits**

Halpert (2011) found that the most influential factor affecting teacher satisfaction was salary. Research demonstrates that most Taiwanese private preschool teachers experience a poor work environment involving low salaries, heavy workloads, and long working hours (Chen, 2009; Chen & Gau, 2011; Hung, 2012; Jang, 2007). These conditions are likely to decrease preschool teachers' morale for their career and even prompt them to abandon their ECEC careers. The PK principal expressed her concern regarding this issue: "Because of the low pay and high workload of preschool teachers, it is hard to demand more passion and a greater contribution from them." In this respect, poor pay and benefits may also impact on leadership style and the capacity and will to direct. In addition, the PN principal mentioned pay and benefits much more frequently than other principals, probably due to the fact that there are many young teachers in PN who are contracted on an annual basis without permanent tenure and are the recipients of wages much lower than the median wage of Taiwan. In addition, with the implementation of CECA, the PN must transform into a preschool, and staff positions and salaries are uncertain. This change process underway in PNs may explain the greater concern over pay and benefits expressed by the PN principal, even though his staff are better paid than PPN or PK staff.

As discussed in Chapter Two, average salaries for preschool teachers in Taiwan are significantly lower than the average wage and far lower than preschool teacher salaries in the USA and Australia. There is also a significant and inequitable difference between salaries for teachers in private and public preschools. Current pay rates for novice teachers in Taiwanese private preschools are estimated at approximately NT\$20,000 (US\$667) per month (Wu, 2011), whilst public preschool

teachers earn NT\$34,155 (US\$1139) per month (Duan & Ma, 2013). Such distinctions are not only socially unjust but also create difficult recruitment and retention issues for private preschools which make it hard for these schools to provide a quality of service that is equivalent to that of the public sector. As a member of the PN parent's focus group suggested, "...[teachers'] benefits in preschools are not high or uniform enough." Government subsidies for teachers might assist decrease high teacher turnover rates. A member of the PK parents' focus group indicated that most parents demand good quality but are typically reluctant to pay higher ECEC fees, and likewise proposed government subsidies for preschools:

Parents want both low tuition fees and good teacher quality, so it needs wisdom to find a balance. I feel the government should consider subsidizing preschools.

It is not an easy task to raise teachers' pay and benefits: it is likely to require a public awareness campaign and government intervention to find the balance between pay and quality. The PN principal contended that "Pay must be high to be able to attract good teachers", and suggested increasing teachers' pay and benefits through government subsidies or by organizing a trade union to negotiate with owners to set up a reasonable pay standard:

First, preschool teachers might be able to organize a trade union.... The government could direct the negotiations between the union and management to set up a reasonable pay standard.

In Taiwan, a legal revision of the Labor Union Law took effect on May 1, 2011. This allows the formation of teachers' unions, but it does not allow teachers' unions to stage strikes. Taiwan might learn from the experience of the US to help teachers to get better pay and working environments through industrial pressure. Loeb, Rouse, and Shorris (2007) reported that teachers receive higher pay in highly unionized states,

and collective bargaining had increased education spending by about 15 percent in USA. Thus, teachers are encouraged to join unions to negotiate better pay and working environments and their successes can provide Taiwanese teachers and industry stakeholders with motivation and strategies to achieve similar improvements in the Taiwanese sector.

In Taiwanese preschools, graduates from high school can be assistant preschool teachers but can only work in a class together with a teacher. Graduates from universities can be employed as preschool teachers. Usually the only position above teachers is that of the principal, so staff have few opportunities in their career path for promotion. Evaluator B suggested that the lack of promotion positions available in preschools might be compensated for by an annual salary adjustment in order to raise the morale of the teachers:

If promotion positions are rather few, perhaps their work and duties can be adjusted and their salary increased. This is at least remedy to compensate for not being able to get promoted.

The salaries paid by private preschools are much lower than the median wage of all trades. A member of the PK parents' focus group commented that "If my pay was the same whether I had five years or ten years of work experience then I could not have any ambition in this kind of work", and suggested "...build[ing] a pay level system similar to the government employee system." In addition, Evaluator A suggested setting up a proper pay framework for teachers in a "Cooperative preschool" policy requiring preschools to register and fulfill certain requirements in order to qualify for subsidies.

Furthermore, after integration, many PN staff members are not sure what their pay, benefits and positions will be, a point made by several PN teachers. This is complicated by the fact that after December 25, 2010, three new direct municipalities were set up by combining county and city administrations. The pay level of staff in original city public preschools was higher than that of county public preschools, which led to accusations of unfairness. To address these issues, a fair pay level system for PN staff and improved clarity and transparency regarding pay, benefits and positions may be required.

#### **4.2.2 Working Environment**

The teacher's workload in public preschools is usually much lower than that the workload of those in private preschools. The PK principal commented that "...they [public kindergartens] can come off duty at 4:30 in the afternoon." Most private preschools, on the other hand, use a "responsibility system" to avoid overtime pay using a loophole in Taiwan's LSA. A typical private preschool teacher works from 7 a.m. to 6 p.m. each day. This amounts to approximately ten hours per day, substantially more than the normal eight working hours, but, as the PN principal noted, "Preschools are not willing to pay overtime fees". Teachers cannot go off duty until all the children have been picked up by parents. Preschools consider this to be part of the teachers' role (Chen, 2009). A member of the PK teachers' focus group attributed the widespread practice of not paying for overtime to the fact that the LSA lacks integrity." In addition to requiring overtime, some preschools do not permit their staff to take leave. For example, a member of the PK teachers' focus group stated: "I was in a preschool which never permitted summer and winter vacations." Similarly, a member of the PN teachers' focus group commented: "Some private kindergartens

hold activities on holidays and take teachers' attendance for granted, and they never permit deferred holidays."

It is essential to improve this working environment, since poor working environments downgrade both teacher quality and ECEC quality. The problem of excessive working hours needs to be resolved, support from principals and colleagues encouraged, and teachers' workloads decreased, particularly in private preschools. U.S. kindergarten teachers usually work a ten-month school year with a two-month summer break (U.S. Bureau of Labor Statistics, 2012). This may be a good model for Taiwanese preschools to follow. How this can be costed into the current system, however, remains a challenge to be addressed by government and the sector.

Moreover, there is a need for fair and flexible working hours and leave entitlements in order to attract and retain good staff. The long hours worked by teachers also creates risk for the children, as exhaustion does not facilitate care for children and passion for one's work. A significant aspect of improving the working environment is the issue of ECEC for preschool teachers' own children. The provision of free or discounted ECEC to preschool teachers in their workplace was suggested by members of the PN parents' focus group. Such measures might make a significant contribution to teacher satisfaction and retention.

#### **4.2.3 Professional Learning Opportunities**

Professional learning opportunities may involve university courses, in-service training, and continuing education. Carte & Fewster (2013) found that professional learning plays a critical role in improving teaching. Lack of professional learning opportunities might make it difficult for teachers to obtain new knowledge and skills,

which will decrease their professionalism and competence to care for and teach children in a rapidly-changing environment. Teachers need to improve their competence for obtaining job opportunities in a strongly competitive environment caused by low fertility rates, as the PN principal stated: “Job opportunities are decreasing, so if teachers want to have job opportunities, they have to continuously undertake training to improve ability.” Furthermore, the GO commented that “After integration, the education department wants to improve the ability and certifications of teachers, so it will definitely have stricter requirements regarding teacher quality than it has now.”

There was a strong perception across participant groups that university and college ECEC education does not engage effectively with the practice of ECEC. All categories of interviewees acknowledged this deficiency and recommended that university courses focus more on practice. For example, the PK principal suggested: “Students should have the opportunity in first year of university to see real workplaces and to face children so they can find out what their shortcomings are.” It was also suggested by a member of the PK teachers’ focus group that courses should teach the skills required to care for physically disabled children in need of special care and cover healthcare problems that frequently appear in children, such as a stomach disorders:

As for special education, I feel that there is not really enough of it. Since we face some badly-behaved children who need to be corrected, universities should provide courses in special education for students to understand children with special needs.

Further issues regarding current teachers’ education include ethical awareness and problem-solving ability. The PPN principal stated: “...dealing with superiors,



colleagues, and subordinates all belong to work ethics; work ethics is an area where students really need to be improved.” She expected teachers knew how to deal with different people with proper manners. With regard to problem solving, the PK principal commented that “...when they [teachers] enter a new environment, they should know how to find and use resources to face problems with children together and to overcome them.”

The importance of in-service training for helping teachers to develop their skills and professionalism was identified in the interviews. For example, the PPN principal asked: “If you never have any improvement in your work skills, how can you keep this job forever?” It is also noted that some businesses provide in-service training courses only to make money without considering the needs of teachers. This situation might improve with government accreditation of private education providers. Alternatively, local city or county governments could take responsibility for statutory 18 hours per term in-service training courses. This could be held at a convenient place or at a university. In-service training might be held on Saturday or at another convenient time. The PN principal suggested that “Private preschools may not like teachers to take in-service training because it certainly will influence the work.” The PN principal also considered the government’s willingness to subsidize preschools to be the main reason why public preschools allowed their teachers to take in-service training:

Public nurseries can apply for government money to subsidize some course fees. Teachers do not need to spend too much money, so they are willing to study.

All principals identified the importance of professional learning to ECEC quality and career opportunities. Only public preschool principals encourage their teachers to take in-service training in working days, while most private preschool principals expect

their teachers to take in-service training during holidays to avoid affecting their daily work. This issue could be resolved by re-scheduling staff working hours and subsidization for lost staff resources through government funding to allow in service training at private preschools.

A member of the PK teachers' focus group suggested that the training courses should fit the needs of teachers, but not only to fulfill workplace regulations: "Governments require us to have 18 hours of training, but I feel that we only train to fit the requirements of 18 hours." It is essential that teachers be able to develop in terms of professionalism and expertise to enhance the quality of ECEC. Providing teachers the opportunity to take in-service training courses can improve teachers' professional learning. The PN principal suggested that "Job opportunities are decreasing, so if teachers want to have job opportunities, they have to continuously undertake training to improve ability." To promote equality of opportunity, participants suggested that private university ECEC courses should be integrated with the child education departments of public universities to grant equal rights for certificate examinations.

For example, a member of the PPN teachers' focus group stated:

Graduates from the ECEC departments of private universities should be as qualified as the graduates from child education departments of public universities, who are eligible to take certificate examinations after half a year of practice. They should integrate ECEC departments and child education departments to allow all students to stand in an equal position.

A key problem with the existing teacher training system as perceived by the research participants is an over-emphasis on theory at the expense of practical skills. Several participants proposed that in-service training courses should have a more practical focus. To address this issue, universities and in-service training might extend practice courses to a longer period, provide practical communication courses, and listen to the

demands of industry to make necessary adjustments to their courses. These student preschool teachers in placement may 'work' in the center under the supervision of a few senior teachers while the rest of the teachers take the opportunities to receive in-service training. Despite the benefits of in-service training for teachers in terms of teaching quality, most private preschools do not usually allow their teachers to take in-service training courses on weekdays. As a member of the PPN teachers' focus group suggests, this problem might be overcome by providing courses "at many different times, such as at night or during holidays", to provide flexibility for teachers who want to take in-service training or to take courses for the teacher's certificate.

The PK parents' focus group recommended that preschools should "...conduct an evaluation after in-service training and build a pay level system similar to the government employee system" to connect training to remuneration with a pay level system. The Queensland Government (2012) offers scholarships to support early childhood teachers in upgrading their qualifications. This could be a good model for the Taiwanese government to encourage teachers' professional learning. It is suggested that students in high school and university plan their careers to learn the necessary knowledge and skills to prepare for service in the ECEC industry. After serving in preschool, it is suggested that staff should strive to develop their careers by taking in-service training or continuous education and learning from the experience and professionalism of senior colleagues. It may be possible and helpful to create a certified pathway from ECEC to primary teaching through further study which might provide a career pathway for preschool teachers and also address the impact of declining fertility and ECEC jobs. Furthermore, it is suggested that preschools take

steps to improve principals' leadership skills and encourage management/senior staff to also take in-service training.

#### **4.2.4 Parent-teacher Communication**

Parent-teacher communication was identified not only as a major factor in ECEC quality (discussed in Sec 4.1.4), but also as a key factor influencing career opportunities. In the context of declining fertility, many interviewees reported that parents may make more requests and enquiries of teachers, as families that have only one child are likely to place greater priority on the quality of care provided to that child. For example, a member of the PN parents' focus groups predicted:

Parents will have more expectations for their children, and so they will make even more requests of their teachers. I feel that teachers will have more stress.

The relationship between demands from parents and preschool teachers' stress levels has also been noted in the literature (e.g. Chen, 2003; Hung, 2012). Pressure from parents might therefore lower morale and raise turnover rates unless preschool teachers receive adequate support from principals and colleagues. Recommendations for improving parent-teacher communication have been suggested in Sec 4.1.4.

#### **4.2.5 Principals' Leadership**

Principals' leadership was identified not only as a major factor in ECEC quality (discussed in Sec 4.1.5), but also a key factor in career opportunities. It is important that principals concentrate on providing good service quality and communicate with and encourage teachers. These issues were identified in the interviews with PK teachers' focus group:

Teacher turnover is up to how the principal cares about teachers. If he thinks that teachers don't matter, he'll think that if you leave he can just find another teacher. It's a kind of 'there are job shortages now, so I don't care about you' attitude. That's why the class is always changing teachers.

The principals should care about and support teachers to encourage them to enjoy their work and commit to provide good quality service. In this way, experienced staff can be retained, and ideally developed to contribute to quality outcomes in the care provided by the school. The leadership style of principals seems to be an important factor affecting career options for teachers. Interviewee comments indicate that parents and teachers see the current approach of principals as unfriendly or inadequate. Leadership training, perhaps mandatory, that encourages principals to listen to the opinions of staff and encourage them in their career expectations and professional learning interests could help to address this problem. Regular meetings with teachers promoting two-way communication, as suggested in the PK focus group, might also promote better communication and ECEC outcomes. The support of principals and colleagues can boost the morale of teachers, which is often low due to inadequate pay, heavy workloads, and having to contend with many demands from parents. A member of the PK parents' focus groups suggested: "...the support of colleagues is important, so when teachers are in a communicative and sharing environment this kind of support can help teacher retention."

#### **4.2.6 Summary of Career Opportunities for Preschool Staff**

The majority of the participant groups identified and ranked the key factors influencing career opportunities in preschools as: pay and benefits, working environment, professional learning, parent-teacher communication, and principals' leadership. All groups identified pay and benefits as a dominant factor, reflecting the

fact that private school teachers' pay and benefits is currently lower than the median wage. The working environment was also considered a key factor by a majority of groups. In addition, principal groups also focused on professional learning, while teacher groups were concerned with all five factors and parent groups also put emphasis on parent-teacher communication and principals' leadership. Principal groups and teacher groups viewed professional learning opportunities as currently inadequate but important to quality and career, while teacher groups and parent groups considered parent-teacher communication to be in need of improvement. All preschool-based groups agreed that the five factors listed above were key factors influencing career opportunities. Sector-wide groups agreed on four of these factors, excluding principals' leadership, which may not be directly relevant to these groups. Raising teachers' pay and benefits, improving the working environment, providing learning opportunities, and holding in-service training for parent-teacher communication and principals' leadership, could improve staff's career opportunities. A summary of the suggestions for improving career opportunities for ECEC staff from participant groups may be found in Table 4.7 (Appendix A1).

### **4.3 What is the Relationship between ECEC Quality and Career Opportunities for Preschool Staff?**

This research has identified important common factors between ECEC quality and career opportunities within the ECEC industry in Taiwan. These links may be classified into two categories: (1) direct common factors in ECEC quality and career opportunities; (2) indirect common factors in ECEC quality and career opportunities. These links are discussed below in the context of ensuring justice and equity in both ECEC provision and staff's career opportunities.

### 4.3.1 Direct Common Factors in ECEC Quality and Career Opportunities

Analysis of the data identifies parent-teacher communication and principals' leadership as direct common factors linking ECEC quality and career opportunities (see Figure 4.34). That is, parent-teacher communication and principals' leadership can influence both areas in a fairly direct way.

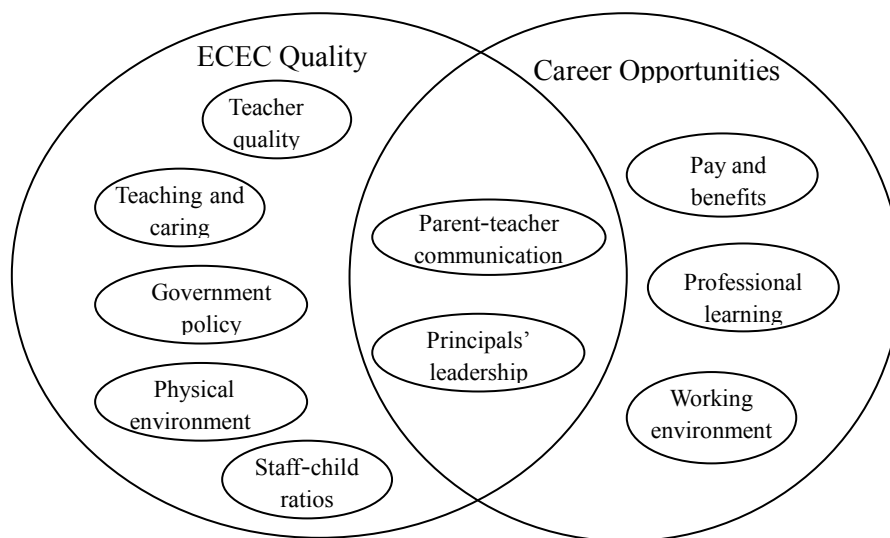


Figure 4.34. Direct common factors in ECEC quality and career opportunities.

#### ***Parent-teacher Communication***

Research findings suggest that poor communication between parents and teachers is a significant contributor to teachers' stress, which is a major factor in job satisfaction. It therefore impacts directly on working conditions and career opportunity. At the same time, teachers' stress impairs the quality of teachers' work. ECEC quality is also compromised by poor parent-teacher communication. For example, parents who do not have regular contact with ECEC staff will have no chance to contribute their suggestions and viewpoints on how ECEC center operations might be improved and may also lack understanding of and confidence in the center. Thus, improving parent-

teacher communication could enhance both the quality of ECEC and teachers' job satisfaction and career opportunities.

### ***Principals' Leadership***

Principals' leadership is a key factor in the quality of parent-teacher communication, since principals with strong leadership skills can better encourage teachers to improve parent-teacher communication by arranging, for example, communication courses for teachers or open days for parents. Principals' leadership directly affects both teachers' career opportunities and ECEC quality because of its impact on teachers' working conditions, teacher performance, and the overall functioning of the ECEC center. For example, participants' responses suggest that a collaborative leadership style both increases teachers' commitment to providing good service and leads to greater enjoyment of their work. The positive impact of good leadership on teachers' job satisfaction also encourages long-term retention of teachers, improving the consistency of ECEC quality and allowing children and their parents to form stable relationships with staff. The importance of leadership and communication skills to both career opportunity and ECEC quality suggests that initiatives to improve these skills, such as participation by both principals and staff in annual in-service training with a focus on leadership and communication, would be greatly worthwhile.

### **4.3.2 Indirect Common Factors in ECEC Quality and Career Opportunities**

Indirect common factors are factors that either: (1) indirectly enhance career opportunities, and, by doing so, also contribute to ECEC quality; or (2) indirectly enhance ECEC quality, and by doing so also contribute to career opportunities. These factors are examined in the two subsections below.



### ***How Better Career Opportunities Can Enhance ECEC Quality***

Poor working conditions reduce teacher performance, and therefore ECEC quality, by increasing stress and reducing morale. In turn, dissatisfaction with career opportunities generated by poor working conditions and low salaries contributes ultimately to teacher turnover. This connection was one of the key themes emerging from participants' responses. High teacher turnover may affect the quality of relationships between teachers and children particularly in relation to attachment and for younger children, which is a key factor in ECEC quality. In addition, in a high turnover industry, experienced, passionate and qualified teachers tend to be rare. Thus, resolving the issues around preschool teachers' career opportunities could have a significant impact on ECEC quality.

Working environment, pay and benefits, and professional learning are all significant factors affecting career opportunity that also have a significant impact on ECEC quality. With regard to working environment, for example, the long working hours of teachers in most private preschools may be damaging to teachers' health and contribute to high attrition. The stress and poor health experienced by teachers reduces the quality of the ECEC they can provide, while high staff attrition rates disrupt ECEC center functioning, make it more difficult for teachers to forge good working relationships with other teachers, and disrupt relationships with children. In addition, high staff attrition increases the costs of running a preschool as replacing and training new staff is costly estimated to impact on organizational profit by up to 40% or the equivalent of six month's salary for every hourly employee lost (People First Solutions, 2005). Poor pay and benefits cause low morale, dampening teachers' passion for their jobs, which this research has found to be crucial to ECEC quality.

Like a poor work environment, poor pay and benefits also contribute to high attrition rates. Professional learning is a crucial factor in advancing teachers' careers that contributes directly to teaching quality by maintaining and building expertise and professionalism. Funds spent in investments in improved work environment, pay and benefits may be recovered by improved teacher retention and associated savings in the costs of recruitment whilst also improving the quality of ECEC service.

Ameliorating existing problems with teachers' career opportunities, then, would boost teachers' morale and well-being as well as increase the energy and passion with which they approach their task. It would also help to increase workforce stability and, by providing greater opportunities for professional learning, increase the expertise and professionalism that teachers bring to their jobs. Thus, policies and initiatives aimed at improving the ECEC working environment, raising pay and benefits for preschool teachers, and providing greater access to professional learning opportunities would also contribute to better ECEC quality.

### ***How Better ECEC Quality Can Enhance Career Opportunities***

There are several factors in ECEC quality that also influence career opportunities. One such factor is staff-child ratios. ECEC staff participants report that low staff-child ratios led to poor ECEC quality because it is difficult for staff to care adequately for children under such circumstances, especially with children from low SES and children with special needs. The stress and anxiety involved in looking after large numbers of children at one time also lowers the morale of staff and their desire to remain in the industry. Thus, government policies to raise staff-child ratios would both

allow staff to give more attention to individual children and relieve the burden on teachers.

Another key factor in ECEC quality is the system of evaluations by the MOE. Evaluations allow the government to monitor ECEC quality, ensure that adequate standards are maintained, and provide guidance to preschools on how ECEC quality can be improved. ECEC staff participants suggest that good evaluation results are a source of satisfaction for many teachers. However, as currently implemented, evaluations are often perceived as a burden by staff, who see them as more a matter of meaningless and time-consuming paperwork than effective quality control. Thus, one unfortunate side effect of evaluations could be a reduction in staff job satisfaction and morale. This potential effect of evaluation on staff should be taken into account when reviewing the current system of evaluations of ECEC in Taiwan.

### ***Justice and Equity Issues in ECEC Quality and Career Opportunities***

Justice and equity in government policy is another issue that links ECEC quality and career opportunities for preschool teachers. Key problems in this regard are remote/urban inequities in ECEC availability and quality, equity of access for families across Taiwan, and inconsistency in university/college course requirements for ECEC professionals.

In Taiwan, inequities in the provision of ECEC between remote and urban areas have been worsening in recent years as remote areas lose their young populations to cities (Wang & Chen, 2007). This wave of internal migration is leading to overpopulation in urban areas and the decline of rural communities (Lall, Selod, Shalizi, 2006). The lack

of resources in rural/remote areas leads to a shortage of ECEC facilities and poor ECEC quality. One key factor in the poor quality and lack of availability is the shortage of preschool teachers willing to work in such areas because of the poor pay and benefits and working environments there. Thus, addressing inequity in working conditions between rural/remote areas and rural areas would also assist in addressing the inequity in high-quality ECEC provision. To ensure equity and social justice in ECEC, the Taiwanese government could employ incentive remuneration to attract more preschool teachers to these areas.

Inequity of access to ECEC also exists as a result of differences in economic conditions within each region of Taiwan. ECEC is still a heavy burden for parents, and subsidization, tax rebates, and setting up more public preschools would provide more families the opportunity to access ECEC. Such measures would also provide more career opportunities for preschool teachers.

Another area in which inequity affects both the quality of ECEC and career opportunities for preschool teachers is higher education. Graduates from the ECEC departments of private universities and from the ECEC departments of public universities are required to meet different standards for teacher certification, resulting in inequities in career opportunities for university/college students. This discrepancy also makes it difficult for the MOE to monitor the quality of courses and students for these two different standards. Thus, a policy to integrate these two systems would both enhance the consistency of ECEC quality and equality of career opportunities for graduates.

## 4.4 Conclusion

This research has investigated the issues of ECEC quality and career opportunities in the ECEC industry in Taiwan and endeavored to identify feasible means to improve them. This chapter has set out the findings of semi-structured focus groups and individual interviews with three evaluators, a GO, three principals, three teacher groups, and three parent groups in three types of preschool regarding ECEC quality and career opportunities in preschools. The research identified several key factors influencing ECEC quality: teacher quality, teaching and caring, government policy, parent-teacher communication, principals' leadership, staff-child ratios, and physical environment. Principals, teachers, and parents groups in the three types of preschool share common concerns with teacher quality, teaching and caring, and government policy; but principal groups also focused on physical environment while both teachers and parents groups put emphasis on parent-teacher communication, and principals' leadership. All preschool-based groups agreed on the seven key factors influencing ECEC quality. Sector-wide groups agreed on six factors as significant excluding physical environment.

The research also suggested several means for improving ECEC quality and improving career options through amendments to policy particularly raising teachers' pay and benefits, increasing the staff to child ratio, setting up more ECEC places, adjusting subsidization strategy and improving communication between parents and teachers. In addition, it was found that while attracting male teachers to the profession was perceived as desirable, the poor remuneration and career opportunities in the industry as well as stereotypical social attitudes to gender and care remain obstacles to achieving greater gender balance.

Key factors influencing career opportunities in preschools were found to be: pay and benefits, working environment, professional learning opportunities, parent-teacher communication, and principals' leadership. All preschool-based groups agreed on these five key factors as influential with regard to career opportunities. Sector-wide groups agreed on four factors excluding principals' leadership. It was suggested that raising teachers' pay and benefits, improving the working environment, improving principals' leadership, providing more opportunity for learning, and increasing the staff to child ratio could improve the career opportunities of ECEC staff. In addition, staff's career opportunities have a great influence on ECEC quality because of the significance of teacher quality which is related to teacher retention as a factor in ECEC quality. Pay and benefits, working environment, professional learning, and staff-child ratios could all be improved through government policies and individual efforts by preschools. These improvements could enhance both ECEC quality and career opportunities.

The following chapter provides a concluding summary of the key findings of this research and makes recommendations for the ECEC sector in Taiwan which can assist improve quality of ECEC services and career opportunities for preschool staff.

## **Chapter Five**

### **Conclusions and Recommendations**

#### **5.1 Introduction**

In the context of declining fertility rates, high teacher turnover and the implementation of CECA, the main objective of this research was to produce a strategy for improving ECEC quality and career opportunities in ECEC in Taiwanese preschools. The data collected from focus group interviews with teachers and parents and from individual interviews with principals, evaluators, and the GO constitute a rich resource for understanding ECEC quality and career opportunities in Taiwan. The interviews with principals, teachers and parents in the PN, PPN, and PK provided a variety of perspectives on ECEC in three types of preschools. The interviews with evaluators and the GO provide sector-wide viewpoints for comparison with the more local perspectives of the principals, teachers and parents.

Across these different groups of participants, perspectives on ECEC quality and career opportunities have both broad similarities and significant differences. This chapter reviews and discusses the main findings of this research and draws conclusions regarding their significance for improving ECEC quality and career opportunities in Taiwanese preschools. Recommendations for government policy and for ECEC stakeholders are proposed based on these conclusions. Finally, the limitations of this research are discussed and suggestions for further research made.

#### **5.2 Research Findings**

The research employed a qualitative case study approach incorporating Katz's (1993) concept of professional, staff, and parent perspectives to evaluate ECEC quality and

career opportunities in preschool. The data collected illuminates the perceptions of nine participant groups in three types of preschools and four sector-wide groups. Participants were asked to identify their own criteria constituting quality ECEC and also to describe career opportunities in the sector. The frequency of the themes mentioned by each the group was used as an indicator of the priority assigned to these themes as factors in ECEC quality and career opportunities. The major findings associated with the key research questions are described below:

### ***Research Question 1***

What are the key factors influencing ECEC quality in Taiwanese preschools?

The key factors influencing ECEC quality in Taiwanese schools identified by participants may be ranked in the following order according to the average priority assigned to it by all groups: teacher quality, teaching and caring, government policy, parent-teacher communication, principals' leadership, staff-child ratios, and physical environment. Key factors for all groups are teacher quality, teaching and caring, and government policy. Differences were apparent in regard to: the physical environment, a key factor for principals but less salient for teachers and parents; and parent-teacher communication and principals' leadership, which were key factors for teachers and parents but less salient for principals. Parents placed emphasis on the role of preschools in training students to have respectful attitudes towards authority figures and to behave politely, which is considered very important in Taiwanese culture. They also prioritized children's safety. Differences in emphasis were discerned between preschool-based groups and sector-wide groups. Sector-wide groups, although they were concerned about six of the above seven issues, did not mention physical



environment. Two of the three evaluators considered the top factor in ECEC quality to be teaching and caring, while all preschool-based groups, one evaluator and the GO prioritized teacher quality.

The top priority across all groups, teacher quality, encompasses passion for ECEC, appropriate qualifications for ECEC, sufficient professionalism and experience, and good communication skills. For the research participants, a good teacher is one who is professional, interested in communication with parents regarding ECEC issues, passionately engaged with their work, and willing to put the children's interest first. In other words, although skills acquired through education and experience were seen as important, research participants emphasized teachers' attitudes towards ECEC. These attitudes can be considered as a major factor in the recruitment interviews of new teachers, and interviewees may be asked to discuss and present some evidence of their attitudes to teaching, caring and career planning especially in relation to assessing their passion for ECEC. This emphasis on teachers' attitudes made demoralization caused by current low pay and working conditions a particular concern for many research participants. Teacher training, including practical communication skills training, was also seen as a priority. In addition to enhanced opportunity for in-service training courses, stricter enforcement of qualifications for teachers and greater transparency regarding the qualifications of teachers employed by preschools were perceived as necessary.

Five major themes on government policy were identified in the interviews. The first was the instability of government policy and its effect on ECEC. In recent years, frequent changes in government education policies have caused uncertainty among

preschool staff and damaged teaching effectiveness. For example, the government's about-face regarding the primary school mathematics curriculum has complicated the task of providing a bridge from basic preschool numeracy programmes to primary school mathematics.

The second major theme was the need for direct government subsidization of preschools. It was generally agreed that government subsidies for preschool were a prerequisite for improving ECEC quality and that subsidizing children directly would not enhance ECEC quality because their parents would use the subsidy for their own living costs. The heavy financial burden of preschool fees for many parents was a concern for most participants, and many suggested that preschools should be made completely free.

The third key theme is the importance of achieving social justice with regard to ECEC affordability and quality. Participants called for stricter tax auditing so that tax evasion did not lead to well-off families receiving high ECEC subsidies. The fourth major theme is the need to address the requirements of remote areas, which tend to lack ECEC places and teachers. To ensure equality of access to ECEC, participants recommended greater policy flexibility, greater allocation of funds to subsidize remote area children, installation of additional ECEC facilities and provision of incentives to attract ECEC teachers to service remote regions.

The fifth key theme identified in research was the need for effective evaluations. The issues of government monitoring of preschool evaluations and quality standards compliance in preschools were discussed frequently. Four themes regarding

evaluations emerged from the interviews: the requirement for greater evaluation accuracy and effectiveness; post-evaluation improvement; evaluation time and frequency; and the workload of evaluation preparation. Participants suggested that evaluations should concentrate more on the interactions between teachers and children and rely less on paperwork, which was perceived as a burden on teachers that reduced the time and effort that could be invested in teaching and caring for children and communicating with parents. It was suggested that unscheduled audits are necessary to prevent preschools from focusing on evaluation preparation rather than the improvement of the quality of childcare teaching and learning. Evaluators with direct practical experience of ECEC should be included in the evaluation team to facilitate such a shift in emphasis and to provide advice regarding post-evaluation improvement, which was perceived as more important than the evaluation itself.

In addition to these five themes, both teachers and parents expressed concern regarding barriers to communication between teachers and parents. As good communication plays a key role in developing partnerships between parents and the school to help children's development, the reported communication problems are likely to be significant factors in reducing ECEC quality. Teachers and parents reported that differences in attitudes towards teaching and caring for children were obstacles to effective communication. To address this problem, teachers might be encouraged to take communication courses to improve their capacity to communicate with and educate parents in the best ways to teach and care for their children and to clarify the interconnectedness of care and education as well as to elicit and respond to parental concerns effectively.

Principals' leadership styles were considered to be a significant influence on the motivations of teachers and student outcomes. Four significant aspects of principals' leadership were identified: commitment to ECEC quality rather than a focus on profit; collective leadership to motivate staff and promote teacher commitment to the preschool; regular development of leadership skills through in-service training; and communication with and support for teachers. Communication with and support for teachers was considered particularly important in helping teachers to improve parent-teacher communication.

Regarding ECEC quality, participants were concerned about the current regulations concerning minimum staff-child ratios, which are 1:15 for three to six year-olds. This proportion makes it difficult for teachers to look after children well. PN participants were most concerned about staff-child ratios, perhaps because many children from less privileged SES in PN classes need more attention and are more difficult for teachers to handle. Most participants suggested that an improvement in the staff-child ratio to 1:10 would enhance ECEC quality, but they were also concerned about whether parents could afford the extra expense. In general, it was thought that the government should take responsibility for creating policy to improve staff-child ratios.

The physical environment was also perceived to be essential in ECEC quality. Concerns included adequate space and facilities for children, but safety was always the top priority, especially for PK parents. Most PNs had limited space and facilities due to limited budgets and because they shared their premises with community centers. Improving this situation might require the government to allocate more suitable buildings and facilities for preschools. Declining fertility rates were

mentioned as an issue for the quality of facilities, since owners might be reluctant to invest in facilities out of uncertainty regarding the rate of return on the investment if enrollments fall. Participants felt that both government subsidies for preschools and more stringent monitoring of safety, space and facilities would be necessary to mitigate this problem.

### ***Research Question 2***

How might ECEC quality in preschools be improved?

The most important theme identified with regard to improving ECEC quality was the need to enhance the quality of teachers by providing government subsidies to raise their pay and benefits. Participants suggested changing government policy from subsidizing parents to subsidizing preschools would enhance ECEC quality, and the optimal strategy may be simultaneously allocating more funds to subsidize children and setting up more ECEC facilities. Government subsidies for preschools could be tied to benefits for teachers such as appropriate working hours. Cost savings from improved teacher retention, which is anticipated to flow from improved pay and conditions, might balance the increased cost of such funding reforms whilst also enhancing the quality of ECEC and should be monitored. Participants identified a need for cooperation between government and preschools to improve teachers' working environment to raise morale and allow them to develop a passion for ECEC. They also identified a need to improve university courses and in-service training by focusing more on the practical aspects of ECEC in order to strengthen teachers' professionalism and experience.

Teacher education was also considered to be a key means of enhancing teacher quality. It was suggested that university and in-service training should include practical courses on teacher-parent communication, special needs, work ethics, and dealing with stress. The government should provide incentives to encourage private preschools to allow their teachers to take in-service training during working days, and principals should be required to participate regularly in-service training to improve their leadership skills.

Other key participant suggestions for improving ECEC quality were:

- ensuring that adequate human resources are employed by the MOE to effectively enforce government policy and to monitor and safeguard ECEC quality as the MOE deals with the process of integrating nurseries and kindergartens;
- encouraging principals to listen to the opinions of staff and hold regular meetings with teachers to promote better communication in order to boost the morale of teachers and their commitment to better ECEC;
- ensuring that standard safety procedures are strictly complied with in order to safeguard children's safety;
- recruiting evaluation team members not only from academic institutions but also including senior persons in the ECEC industry;
- using unscheduled audits in evaluation to prevent preschools from focusing on audit preparation rather than the improvement of ECEC quality;
- ensuring that ECEC facilities of preschools are adequate in terms of safety, space and environmental quality by subsidizing preschools and closely monitoring compliance with regulations;

- improving staff-child ratios from the current minimum of 1:15 to 1:10 by means of new regulations and government subsidies to support the expense of hiring extra teachers;
- ensuring equitable access to ECEC for those in remote areas by building more ECEC centers and providing incentives to attract ECEC teachers to these areas;
- increasing government subsidies for ECEC so as to make preschool fees for five- year-old children entirely free.

### ***Research Question 3***

What are the key factors influencing career opportunities in Taiwanese preschools?

On average, participant groups ranked the major factors for career opportunities in the following order: pay and benefits, working environment, professional learning opportunities, parent-teacher communication, and principals' leadership. The principal, teacher, and parent participant groups of the three preschools agreed on the key significance of pay and benefits, but differed in the emphasis they placed on the other issues. While teacher groups were more or less equally concerned with all five factors, principals focused more on working environment and professional learning and parents more on parent-teacher communication and principals' leadership. All preschool-based groups agreed that these five factors exerted a significant influence on career opportunities, while sector-wide groups omitted principals' leadership as a factor, presumably because they are not as directly involved in interactions with principals as preschool-based participants are.

The significance of pay and benefits as an issue is not surprising given that private preschool teachers' salaries in Taiwan are significantly lower than the median wage. Because teachers have few opportunities in their career path for promotion within preschools, it was thought that compensation and annual salary adjustment would be necessary to recruit and retain skilled teachers. Raising teachers' pay and benefits may require both public awareness and government subsidies to find the right balance between pay and quality. It was also suggested that a trade union be organized to negotiate with government and owners to set up a reasonable pay standard. Uncertainty regarding potential changes in pay, benefits, career options and job security after CECA-driven sector integration takes place was another significant issue for PN staff members. Swift resolution of this issue is vital, since integration will certainly influence the staff's career opportunities and service quality.

Working conditions are particularly important as a factor in private preschools, where teachers' workloads are much heavier than in public preschools. Participants reported that most private preschools use a "responsibility system" to avoid overtime pay and that a typical private preschool teacher works ten hours per day, far more than the official standard of eight working hours. In addition, some preschools do not permit their teachers to take leave. Participants considered it necessary to improve the working environment, since poor working environments reduce teacher's passion and commitment for service and thus decrease both teacher quality and ECEC quality.

Another key factor in ECEC career opportunities is the perceived deficiencies in practical education provided by university ECEC courses and in-service training courses. All categories of interviewees acknowledged this deficiency and



recommended that university courses focus more on practice. Greater emphasis in ECEC courses on problem-solving abilities and skills for coping with stress were also recommended. Opportunities to develop one's career through education were considered a key issue for teachers' career opportunities. This might involve university courses, in-service training, and continuing education to help develop teachers' skills and professionalism. Moreover, it was suggested that universities should provide greater flexibility in terms of time scheduling to make it easier for preschool teachers to study for teacher's certificates. The inflexibility of private preschools, which usually do not allow their teachers to take in-service training on workdays, was also perceived as an obstacle. This may require government to provide incentives, such as subsidies for preschools to encourage preschools to allow their staff to take in-service training on workdays.

Parent-teacher communication and principals' leadership were identified not only as major factors in ECEC quality but also as key factors in career opportunities. Pressure from parents can cause stress for teachers and lower their morale, and it was considered important that teachers receive adequate support from principals and colleagues to alleviate this problem. Principals' leadership – including communication, encouragement, and support for teachers – was considered vital in maintaining morale for teachers and thus encouraging teachers to persist in a teaching career. Participants emphasized commitment to educational values, support for teachers, and good-quality service rather than a focus on profit as key attributes of good principals.

#### ***Research Question 4***

How might career opportunities be improved for ECEC staff?

The following suggestions for improving career opportunities for ECEC staff were made by participants:

- establishing a government-industry working group to review quality in child care in the context of declining fertility, poor pay and conditions, and low career opportunity;
- raising ECEC teachers' pay and benefits possibly requiring government subsidies to private ECEC providers. It was also suggested that the LSA needs to be reviewed to address the practice of not paying for overtime in preschool, that free or discounted ECEC should be provided to preschool teachers in their workplace, and that the formation of a preschool teacher union might be required to negotiate improvements in preschool teachers' pay and benefits;
- improving working conditions by improving the quality of principals' leadership, supporting better communication with parents, raising staff-child ratios, providing fair and flexible working hours, and ensuring that all teachers are given leave entitlements;
- preventing ECEC centers from using the 'responsibility system' to force teachers to work unpaid hours;
- establishing government regulations requiring private schools to provide teachers with the opportunity to take in-service training courses to improve their abilities and skills;
- integrating private university ECEC courses with the child education departments of public universities so that public and private university students

would have equal rights with regard to prerequisites for obtaining ECEC qualifications.

### ***Research Question 5***

What is the relationship between ECEC quality and staff's career opportunities?

ECEC quality and staff's career opportunities were felt to be closely related. Participants identified the low pay and benefits offered to preschool staff as the single most important obstacle to hiring and keeping good staff, which in turn is identified as the most significant factor in ECEC quality. It follows, according to the reasoning of most participants, that improving career opportunities in terms of pay and benefits, working environment, and professional learning can also enhance teacher quality and thus ECEC quality.

Both ECEC quality and career opportunities are perceived to be dependent on parent-teacher communication and principals' leadership by several participant groups. It was observed that good leadership by principals can encourage staff and make teachers' work easier, which in turn can enhance ECEC quality. It was therefore suggested that both principals and staff should take regular in-service training course on leadership and communication skills in order to improve ECEC quality.

In addition, the issue of justice and equity with regard to remote/urban discrepancies in ECEC availability and quality, to equity of access for families regardless of SES, and to university/college course standards, must be addressed ECEC to ensure equity in ECEC quality and career opportunities. It is suggested that government should design policies to resolve these issues.

## **5.3 Recommendations**

On the basis of the research findings summarized in Section 5.2, several recommendations to enhance ECEC quality and career opportunities in preschools are presented. The recommendations are offered to government, preschools, teachers, evaluators, and parents.

### **5.3.1 Recommendations for Government**

#### ***Providing Stable Policy***

It is necessary to provide stable policy regarding ECEC to provide school principals with a clear direction in which to guide their preschools and to allow staff to plan their career planning and professional learning. Policy needs to be based on long term planning and not altered abruptly by changes of government or for political reasons.

#### ***Raising Preschool staff's Pay and Benefits***

A government-industry working group should be established to review quality in child care in the context of declining fertility, poor pay and conditions, and few career opportunities. The government could take steps to raise the pay and benefits of preschool staff to the level of primary school teachers and provide a pay framework providing additional pay according to service years, in-service training and continuing education similar to that of the government employee system. Furthermore, teachers' working hours and overtime pay should be strictly monitored. It is also necessary to review the Labor Standards Act to address the practice of not paying for overtime in preschools. In addition to boosting morale and encouraging retention of teachers, this might also attract more male teachers to work in preschools.

### ***Improving the Staff-Child Ratios for Age 3-6 to 1:10***

In Taiwan, regulations specify that staff-child ratios for 3-6 year-olds must be at least 1:15. To address the difficulty of caring for and teaching so many children well, the government should improve the staff-child ratio to 1:10 for 3-6 year-olds in preschools to improve quality and relieve the burden on staff, but this could cause tuition fee increases.

### ***Subsidizing Preschools***

The research found that the government policy of subsidizing parents may not be an effective means of improving ECEC quality. The optimal strategy may be simultaneously allocating more funds to subsidize preschools and setting up more ECEC facilities. Government subsidies for preschools could be tied to benefits for teachers, such as appropriate working hours, and support for in-service training during the workday. This measure should be accompanied by more stringent measures to monitor the compliance of preschools with safety, space and facility regulations. Subsidies can also serve as a tool for government policy by providing incentives for actions that promote ECEC quality such as allowing staff to take in-service training on workdays and providing appropriate overtime pay.

### ***Including Five Year-old Children in the National Education System***

Learning by five year-old children has implications for their future academic and social development (Barnett, 1995; Espinosa, 2002; Sammons et al., 2008). A policy of including five year-old children in the national education system can enhance ECEC quality and benefit children's development and the well-being of society in the long term (Li, 2012). Under the current policy of free tuition for five year-old

children, parents still have to bear a rather heavy burden, especially for private schools, and most children cannot attend public preschools because of the limited number of such schools. Parents have to pay several different kinds of fees to preschools, and government subsidies for five year-old children are insufficient.

### ***Social Justice***

Under the current tax system, there is a widespread perception that self-employed families can obtain ECEC subsidies to which they should not be entitled by means of tax evasion. On the other hand, some families with low SES do not meet the income threshold for ECEC subsidies but nevertheless have great difficulty in affording preschool fees. It is recommended that the government should both audit real family income as a criterion for eligibility for preschool subsidies more strictly and apply broader criteria for eligibility, including rent payments, the cost of living in a particular area, and family size.

The main ECEC issues in remote areas are the shortage of ECEC places and difficulty in recruiting preschool teachers. Preschool teachers are often unwilling to serve in these areas because of the lack of facilities. To address these issues, the government should provide more funds to subsidize preschool, set up more ECEC facilities and provide incentives such as extra remuneration to attract preschool teachers to work in remote areas.

To address the issue of unequal treatment of students of private and public universities with regard to prerequisites for obtaining ECEC qualifications, the government should standardize ECEC courses in private and public universities so that all students have the same criteria for eligibility to sit ECEC certificate examinations.

To ensure that all children and families have equal opportunities to access ECEC, the government should design policies involving subsidization, tax rebates, and the establishment of more public preschools.

### ***Ensuring Sufficient Human Resources in the MOE***

The integration of nurseries and kindergarten took effect on 1 January, 2012. To oversee this process properly, there may be a need to provide extra human resources in the MOE or local government to enforce government policy on ECEC quality effectively. In addition, the government should punish preschools that do not follow regulations by operating without registration or violating standards for staff-child ratios, overtime pay and leave for teachers. More stringent penalties for non-compliance and effective enforcement may require employing additional auditors.

### ***Requiring Background Checks for Preschool Staff***

For parents, children's safety is the top priority in preschool. ECEC background checks on preschool staff are important to ensure that children in preschools are completely safe. Preschool staff should be required to pass background checks prior to engaging in ECEC work to ensure that they do not have a criminal record relating to child abuse or sex offenses.

### **5.3.2 Recommendations for Higher Education Institutions (ECEC Colleges and Universities)**

To improve the capacity of preschool staff to provide high-quality ECEC, higher education institutions need to include more practical courses addressing the needs of preschool staff, such as teacher-parent communication skills, special needs, work

ethics, and the ability to deal with stress. Higher education institutions should also attempt to provide greater flexibility regarding time constraints for completing courses to make it more convenient for teachers to obtain qualifications or improve their skills.

### **5.3.3 Recommendations for Preschool Principals**

Principals should regularly take in-service training to improve their leadership skills and education expertise so that they can communicate effectively with teachers to provide good service. They should allow and encourage staff to take in-service training and provide them with fair and flexible working hours, overtime pay and leave entitlements. The provision of free or discounted ECEC to staff can ease their concerns regarding their own children and boost their morale, resulting in better service. In addition, they should set up a parent committee to improve communication between preschools and parents and provide feedback to schools to improve the quality of ECEC. It is further suggested that teacher aptitude, good attitude, and passion should be emphasized and assessed in recruitment interview with new teachers.

### **5.3.4 Recommendations for Preschool Teachers**

Teachers should regularly take in-service training courses to improve their ECEC knowledge and expertise, including areas such as dealing with stress and parent-teacher communication skills. Since research outcomes suggest that communicating with parents regarding ECEC practice is a key aspect of good-quality ECEC, teachers are encouraged to take opportunities to communicate with parents regarding the progress of their children child-raising practices face to face or by telephone, email,



social media, or even blogs. In addition, teachers are encouraged to organize and join a trade union to negotiate with government and owners to set up a reasonable pay standard.

#### **5.3.5 Recommendations for Parents**

Parents are encouraged to take the opportunities presented to them to communicate with the preschool about the progress of children and ECEC quality issues such as evaluation results and teachers' qualifications either in person or through such means as school websites. Parents are also encouraged to attend the parent committee to provide feedback to schools regarding quality improvements and increase understanding between parents and teachers.

#### **5.3.6 Recommendations for Evaluators**

Evaluations can create a heavy workload for preschools and preschool staff. It is suggested to simplify the evaluation process, focusing less on paperwork and more on what actually occurs inside the preschool, such as "teaching and caring" and the interaction between staff and children. Evaluation team members should not only consist of scholars from academic institutions but also include senior persons in the ECEC industry.

It is suggested to make unscheduled audits to prevent preschools from focusing on audit preparation rather than the improvement of ECEC quality. Post-evaluation corrections require experienced people to guide the corrections. Finally, evaluation results should be publicly published on a website so that parents can access current information as a reference for choosing preschools.

## **5.4 Recommendations for Future Research**

Several potential areas for future research have emerged in the course of the study. These may include observations of children's behavior at preschool to understand the perceptions and needs of children regarding the quality of preschool provision. For the purpose of comparing the results of the current study, research using quantitative methods may be useful in future studies to survey relationships between variables affecting preschool quality and career paths. It will be beneficial to study preschools in remote areas, where the significance of factors influencing quality and career opportunities in ECEC may differ from those explored in this study. In addition, data on teacher turnover rates in recent years is not available; a national survey of teacher turnover rates and reasons for quitting the industry could reveal important information regarding career opportunities in ECEC. A calculation of the cost of such attrition to the industry would also provide valuable data related to resourcing the industry for improved quality and career outcomes. Furthermore, data regarding the affordability of cities or areas in Taiwan for four-six year-old children attending preschools are not available. Research into this issue could identify regional variations and inequities.

## **5.5 Chapter Summary**

This research has explored the perspectives of principals, teachers and parents in PN, PPN, and PK three types of Taiwanese preschools and the sector-wide views of evaluators and a GO on ECEC quality and career opportunities. This chapter has presented the results of the data analysis and the major conclusions derived from these findings. These research results can be a reference for government, higher education institutions, preschools, teachers, and parents for enhancing ECEC quality and career

opportunities of preschools. Recommendations based on these results have been presented for enhancing ECEC quality in preschools and career opportunities for staff.

## **Chapter Six**

### **Reflection**

My interest in ECEC began in my adolescence. I started to pursue knowledge about ECEC through independent reading when I was about fifteen, and I have continued to do so until now. I majored in ECEC in college, where the ECEC courses I studied gave me a solid foundation in understanding ECEC. Since graduating from college, I have been employed in kindergartens as a teacher and director, and have gained a substantial amount of practical and professional skill in this field. Feeling the need to understand the theory of childcare and child education more deeply, I studied in the department of Psychoanalytic Studies at the Leeds Metropolitan University in England to obtain my Master of Arts degree in 1997 with a dissertation entitled “Play, Creativity and Child Education: A Psychoanalytic Perspective.” While in England, I pursued my interest in computer programming at the Women’s College of Technology, obtaining sixteen certificates in computer science issued by the City and Guilds of London Institute.

Since returning to Taiwan, I have been teaching ECEC at Chia Nan University of Pharmacy and Science. While teaching there, I felt that a doctorate in child education would provide me with the education I need to enhance my professional capability. I therefore began the Doctor of Professional Studies course at CQUniversity in July 2008. Initially, I wanted to pursue a research topic that would allow me to exercise my expertise in both computer science and ECEC, and so I chose to investigate the possibilities of applying information technology to ECEC.

The Doctor of Professional Studies program is divided into two components, a year-long course work component and a research component. The course work component of the program enhanced my research and critical thinking skills and allowed me to gain greater insight into the theoretical background to my thesis. It also provided me with the opportunity for reflection on the research problems so as to identify gaps in research and professional practice relevant to my research topic. In particular, the “Mode-2 Knowledge Production” assignment helped me to understand the significance of Gibbons et al.’s (1994) concept of transdisciplinary Mode 2 knowledge production for my research. This concept inspired me to employ concepts and knowledge from a range of disciplines to develop useful research output.

After the completion of the course work component of the course, Associate Professor Alison Owens was assigned to be my supervisor for the research component. She encouraged me to explore a broad range of literature to gain insight into relevant issues in Taiwanese ECEC. I had already written a literature review as one of the assignments in the course work component of the course, and Associate Professor Owens assisted me in identifying shortcomings in that review. At this point, as I reflected on the research direction and considered the many problems existing in the ECEC sector in Taiwan as fertility declines, I decided that it would be more meaningful to focus on identifying strategies to address these issues than to continue with my earlier purpose of investigating the application of information technology to ECEC. Following a suggestion by Associate Professor Owens that ECEC quality and career opportunity in the ECEC sector would be a worthwhile research direction, I changed my research topic to “Exploring limitations in quality and career opportunities in preschools: A case study of Taiwanese preschools.”

Associate Professor Owens also guided my choice of research methodology. At the time, I was hesitating about whether a quantitative or qualitative approach was more appropriate for my research project. Associate Professor Owens helped me to understand the limitations of quantitative research for my research topic and the potential of qualitative research to explore the issues more broadly and with greater nuance. She also provided input into my choice of participants. To my initial choice of a sample of principals, teachers and parents in three types of preschools, Associate Professor Owens advised me to add evaluators and a government official to broaden the perspectives on Taiwanese ECEC available to me. In devising my interview questions, she advised me to take cultural background into consideration.

In May, 2011, I passed the Colloquium, and then I could proceed to the research phase of the research project. At this stage, I contacted several preschools to find three participant schools in Taiwan and obtained consent from the principals of a public nursery, a privatized public nursery, and a private kindergarten to participate in this research project. In September, 2011, I started my research interviews after passing National Ethics Application Form (NEAF), which is an ethical clearance requirement for researchers. I scheduled thirteen interview sessions including individual interviews with principals, evaluators, and a GO and focus group with teachers and a parents. I went to interview participants at each school twice to ensure that I could find a convenient time to interview all participants. In the analysis of the interview transcript, when I was not clear about the exact meaning of the words or phrase, I used email or telephone to consult the interviewee. Associate Professor Owens advised me to use a count of frequency of utterance to identify the priority of the participants' perceptions of the key factors.

Associate Professor Owens encouraged me to post papers to conference and journal article to share my research findings with stakeholders. I made an oral presentation in a conference on child health and safety in Taiwan in May, 2012 entitled “The Study of Preschool Teacher’s Turnover in Taiwan.” In addition, a journal article entitled “Study of Factors Influencing Childcare Quality in Preschools” was accepted and published in the *Chia Nan Annual Bulletin: Humanity* in June, 2013 in Taiwan.

Reviewing my doctorate study at CQUniversity, it was full of challenges, and required a huge amount of research in online databases and reading. But this research has been a wonderful learning experience that has greatly developed my expertise as a scholar. Throughout this process, my own efforts have been guided by the invaluable contributions of others. I would like to express my appreciation to my supervisor Associate Professor Owens for her kind and patient guidance during this research project. I also appreciated the input of my Taiwanese industry supervisor Ching-yuan Su, who provided guidance concerning the problems and issues in the Taiwanese ECEC sector from an insider’s perspective. I was also assisted greatly by the encouragement and support of my mother, who passed away in September 2009 while I was completing the coursework component of my course. My determination to complete the Doctor of Professional Studies course was inspired by her memory and a desire to fulfil her hopes for my further education.

## References

- 104 job bank. (2007). Fresh Graduate Retrieved Sep 15, 2010, from <http://140.114.42.11/job/freshman/1170829571-1132.htm>
- Abler, D. A. (2002). *Relationships of teacher organizational commitment and teacher efficacy to school academic standing and teaching experience*. (ProQuest digital dissertations No. AAT 3073147).
- AC people. (2010). *Kindergarten and Preschool Teachers Salaries*. Retrieved May 20, 2012, from [http://www.acpeople.com.au/cat/Kindergarten-and-Preschool-Teachers\\_2411xj.htm](http://www.acpeople.com.au/cat/Kindergarten-and-Preschool-Teachers_2411xj.htm)
- Aikens, N. L., & Barbarin, O. (2008). Socioeconomic differences in reading trajectories: The contribution of family, neighborhood, and school contexts. *Journal of Educational Psychology, 100*(2), 235–251.
- Aos, S., Miller, M., & Mayfield, J. (2007). *Benefits and costs of K-12 education policies: Evidence-based effects of class size reductions and full-day kindergarten*. Olympia, WA: Washington State Institute for Public Policy.
- Bacolod, M. P. (2007). Do alternative opportunities matter? The role of female labor markets in the decline of teacher quality. *The Review of Economics and Statistics, 89*(4), 737-751.
- Barnard, W. M. (2004). Parent involvement in elementary school and educational attainment. *Children & Youth Services Review, 26*(1), 39–62.
- Barnett, S., & Ackerman, D. J. (2006). Costs, benefits, and the long-term effects of preschool programs. Community Development: *The Journal of the Community Development Society, 37*(2), 86-100.
- Barnett, W. S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children, 5*(3), 25-50.
- Barnett, W. S. (2003). Low wages= low quality: Solving the real preschool teacher crisis. *Preschool policy matters, 3*.
- Barnett, W.S. (2004). Maximizing returns from prekindergarten education. In Federal Reserve Bank of Cleveland Research Conference: *Education and economic development*. Cleveland, OH: Federal Reserve Bank of Cleveland.



- Barnett, W.S., & Carolan, M. E., Fitzgerald, J., & Squires, J.H. (2011). *The state of preschool 2011: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- Bellm D. (ED.). (2008). *Early children educator competencies*. California: Center for the Study of Child Care Employment. University of California, Berkeley.
- Berlyn, C., Holzer, P., & Higgins, D. (2012). *Australian Policy Online (2012) Pre-employment screening: Working with children checks and police checks*. Retrieved May 11, 2013, from <http://apo.org.au/research/pre-employment-screening-working-children-checks-and-police-checks>
- Berry, B., Smylie, M., & Fuller, E. (2008). *Understanding teacher working conditions: A review and look to the future*. Report, prepared for the Spencer Foundation. Hillsborough, NC: Center for Teaching Quality. Retrieved Feb 22, 2011, from [http://www.teachingquality.org/pdfs/TWC2\\_Nov08.pdf](http://www.teachingquality.org/pdfs/TWC2_Nov08.pdf)
- Bigras, N., Bouchard, C., Cantin, G., Brunson, L., Coutu, S., Lemay, L., & Charron, A. (2010, June). A comparative study of structural and process quality in center-based and family-based child care services. In *Child & youth care forum*, 39(3), 129-150).
- Blau, D. M. (2000). The production of quality in child-care centers: Another look. *Applied Developmental Science*, 4(3), 136-148.
- Bloomfield, D. (2006). *A new discourse for teacher professionalism: Ramsey, standards and accountability*. Paper presented at the AARE 2006 Conference, Adelaide, 27-30 November. Retrieved July 28, 2011, from <http://www.aare.edu.au/06pap/blo06777.pdf>
- Bretherton, T. (2010). *Developing the Child Care Workforce: Understanding 'Fight or Flight' Amongst Workers, Research*. Report, National Center for Vocational Education Research, Adelaide.
- Bryman, A. (2004). *Social Research Methods*, Revised edition (Oxford University Press).
- Burchinal, M. R., & Cryer, D. (2003). Diversity, child care quality, and developmental outcomes. *Early Childhood Research Quarterly*, 18, 401-426.
- Burchinal, M. R., Cryer, D., Clifford, R. M., & Howes, C. (2002). Caregiver training and classroom quality in child care centers. *Applied Developmental Science*, 6(1), 2-11.
- Burchinal, M., Vandergrift, N., Pianta, R., & Mashburn, A. (2010). Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. *Early Childhood Research Quarterly*, 25, 166-176.

- Butler, A., Gish, M., & Shaul, M. (2004). *Head Start: Background, Issues and Bibliography*. Nova Science Pub Incorporated.
- Carter, M. A., & Fewster, C. (2013). Diversifying early years professional learning: one size no longer fits all. *Australasian Journal of Early Childhood*, 38, 73-80.
- Caspe, M. S. (2003). How teachers come to understand families. *e School Community Journal*, 13(1), 115-131.
- Ceglowski, D., & Bacigalupa, C. (2002). Four perspectives on childcare quality. *Early Childhood Education Journal*, 30(2), 87-92.
- CBI, Children Bureau Ministry of Interior, Republic of China. (2009). *Construct a friendly nursery environment- nursery management and subsidy* Retrieved June 12, 2009, from [http://www.cbi.gov.tw/CBI\\_2/internet/english/index.aspx](http://www.cbi.gov.tw/CBI_2/internet/english/index.aspx)
- Chang, A., Lung, M. & Nebedum, A. (1989). Injuries among preschool children enrolled in day-care center. *Pediatrics*, 83(2), 272-277.
- Chang L.W. (2005). *A Research of Kindergarten Evaluation administrative affair in Tainan County*. Unpublished master's thesis, National Chiayi University, Taiwan.
- Chang, M & Cheng, F. (2002). Studies on the Environment Safety of Family: Care Centers in Taichung Area. *The Journal of Health Science*, 4(2), p105-125, Taiwan.
- Chapman, O. (2014). Professional learning of practicing mathematics teachers. *Journal of Mathematics Teacher Education*, 17(1), 1-3.
- Chen, H. (2008). *Early childhood education: Perceptions about professional competence among Taiwanese preservice teachers*. University of South Dakota). ProQuest Dissertations and Theses, 116-n/a. Retrieved June 20, 2011, from <http://search.proquest.com/docview/304458968?accountid=10118>. (304458968).
- Chen K. T., (2003). Research on the Preschool Teachers' Perceived Problems and Coping Strategy. *Journal of Child Care*, 1, 185-213.
- Chen, S.F. (2004). Meta-evaluation of kindergarten evaluation in Taitung, NTTU Educational Research Journal, 15(2), 87-122.  
陳淑芳 (2004)。台東縣幼稚園評鑑實施成效研究。台東大學教育學報，15(2)，87-122。
- Chen, Y. G. (2009). Public/Private Preschool Teachers' Turnover in Taiwan: A Test on Correlative Variables and Theories. *Journal of Research on Elementary and Secondary Education*, 22, 53-77.
- Chen, Y. L., & Gau, W. (2008). Study of Low-Income Children's Child Care Quality: Take Pingtung County as an Example. *Educational Review*, 31, 45-77.

- Chen, Y. L., & Gau, W.C. (2011). Study of the Relationship between Structural Quality and Process Quality in Child Cares for Low-Income Children in Pingtung County. *Bulletin of Educational Psychology*, 42(3), 403-421.  
陳雅鈴、高武銓 (2011)。屏東縣中低收入戶幼兒就讀之幼托園所其結構品質與過程品質關係之探討。 *教育心理學報*，42(3)，401-421。
- Cheng, J. N. & Chen, Y. G. (2011). The empirical study of the kindergarten teachers' job satisfaction in Taiwan: exploring the effect of the intrinsic demand, external reward, and organizational treatment. *The Journal of Human Resource and Adult Learning*, 7(2).
- Cheng, M. (2008). *Job stress, self-efficacy, burnout, and intention to leave among kindergarten teachers in taiwan*. Lynn University). ProQuest Dissertations and Theses, 258-n/a. Retrieved May 10, 2012, from <http://search.proquest.com/docview/304820909?accountid=10118>. (304820909).
- CHI, L. Y. (2007). *Multiple Perspectives on Quality of Childhood Education Research*. Unpublished master's thesis, National Taitung University, Taiwan.
- Child Care Aware of America, (2012). *Parents and the High Cost of Child Care: 2012*. Child Care Aware of America, Report.
- Chin, J. (2007). Meta-analysis of transformational school leadership effects on school outcomes in Taiwan and the USA. *Asia Pacific Education Review*, 8(2), 166-177.
- Chiu, C. P., & Wu, Y. S. (2006). *On the Voucher Policy of Early Childhood Education in Taiwan* Retrieved Oct 12, 2010, from <http://www.ccunix.ccu.edu.tw/~deptcrfppm/national/essay/12124-3.pdf>
- Chiu, C. P., & Wei, S. (2011). Child Care Friendly Policies and Integration of ECEC in Taiwan International. *Journal of Child Care and Education Policy*, 5(2), 1-19.
- Clark, D., Martorell, P., & Rockoff, J. (2009). *School Principals and School Performance*. (CALDER Working Paper 38) Washington, D.C.: Center for Analysis of Longitudinal Data in Education Research.
- Claudia, G. (2005). Teacher burnout: How to keep teachers. *Current*, 472(B), 12-16.
- Clements, M., Reynolds, A., & Hickey, E. (2004). Site-level Predictors of School and Social Competence in the Chicago Child-Parent Centers. *Early Childhood Research Quarterly*, 19, 273-296.
- Collins, C. (Ed). (1993). *Competencies: the competencies debate in Australian education and training*. Australian Capital Territory: National Capital Printing.

- Colombo, M. W. (2004). Family literacy nights... and other home-school connections. *Educational Leadership*, 61(8), 48-51.
- Council of Australian Governments, (2009). *National Quality Standard for Early Childhood Education and Care and School Age Care*, Council of Australian Governments. Retrieved Nov 2, 2010, from <http://www.eduweb.vic.gov.au/edulibrary/public/earlychildhood/nqf/nationalqualitystandard.pdf>
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson.
- Cryer, Tietze, Burchinal, Leal, & Palacios (1999). Predicting Process Quality from Structural Quality in Preschool Programs: A Cross-Country Comparison *Early Childhood Research Quarterly*, 14(3), 339-361.
- Daan, V. K., Rolf, V. D., & Susana, T. (2007). Social identity and social exchange: Identification, support, and withdrawal from the job. *Journal of Applied Social Psychology*, 37(3), 457-477.
- Dahlberg, G., Moss, P., & Pence, A. (2007). *Beyond quality in early childhood education and care: Languages of evaluation* (2nd Ed.). London: Falmer Press.
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession. *Washington, DC: National Staff Development Council*.
- Day, C. (2004). *A Passion for Teaching*. London: RoutledgeFalmer.
- Day, C., & Smethem, L. (2009). The effects of reform: Have teachers really lost their sense of professionalism? *Journal of Educational Change*, 10(2-3), 141-157.
- de Schipper, E. J., Riksen-Walraven, M., & Geurts, S. A. E. (2006). Effects of child-caregiver ratio on interactions between caregivers and children in child-care centers: An experimental study. *Child Development*, 77(4), 861-874.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005). *The Sage handbook of qualitative research* (3<sup>rd</sup> ed.). Thousand Oakes, CA: Sage.
- Department of Education, Employment and Workplace Relations (DEEWR), Australian Government. (2010). *State of Child Care in Australia*, Retrieved Dec.27, 2010, from <http://www.deewr.gov.au/Earlychildhood/Resources/Documents/StateChildCareAus.pdf>

- Department of Statistics, MOI. (2010) *Child and Youth Welfare Institutions and Services*. Retrieved OCT 11, 2010, from <http://sowf.moi.gov.tw/stat/year/y04-06.xls>
- Department of Statistics, MOE. (2011). *Education Expenditure Statistics*. Retrieved March 21, 2011, from <http://www.edu.tw/files/publication/B0013/99indicators.xls# 1!A1>
- Department of Statistics, MOI. (2012). *Fertility Rates of Childbearing Age Women, Statistical Yearbook of Interior*, Retrieved OCT 5, 2012, from <http://www.moi.gov.tw/stat/english/year.asp>
- Devlin M., O'Shea, H., (2011). *Teaching students from low socioeconomic backgrounds: A brief guide for University teaching staff*. Higher Education Research Group (HERG), Deakin University, ISBN: 978-0-646-55837-0
- Directorate General of Budget, Accounting and Statistics, Executive Yuan, Taiwan (2010). *Salary of employee*, Retrieved May 21, 2011, from <http://win.dgbas.gov.tw/dgbas04/bc5/earning/ht4561.asp>
- Dowling, A, & O'Malley, K. (2009). "Preschool Education in Australia" Policy Briefs, Preschool education in Australia. Retrieved May 25, 2011, from <http://www.acer.edu.au/documents/PolicyBrief>
- Duan, H.Y. (2011). *Issues in and reform of child education development of Taiwan*, In C.G. Wu, Retrospects and Prospects on Education in Taiwan. National Academy for Educational Research, ISBN 9789860818581  
 段慧瑩 (2011)。社會變遷中私立幼兒園未來發展議題與策略探究。我國幼兒教育發展之議題與興革。我國百年教育回顧與展望，初版。
- Duan, H.Y., & Ma, T.L. (2013). The Development Strategies for Private Preschools to Adapt to the Transition Society of Taiwan. *Journal of Early Children & Care*, 10, 1-17.  
 段慧瑩、馬祖琳 (2013)。社會變遷中私立幼兒園未來發展議題與策略探究。幼兒教保研究期刊, 10, 1-17。
- Epstein D. J., Friedman A. H., Sansanelli R. A., Hustedt J. T. (2009). *The State of Preschool 2009*. National Institute For Early Education Research. Retrieved December 20, 2010, from <http://nieer.org/yearbook/pdf/yearbook.pdf>
- Espinosa, L. M. (2002). Preschool Policy Matters High-Quality Preschool: Why We Need It and What it Looks Like. *Preschool Policy Matters*, 1, NIEER. Retrieved OCT 2, 2010, from <http://nieer.org/resources/policybriefs/1.pdf>

- Fenech, M., Harrison, L., & Sumsion, J. (2011). Parent users of high-quality long day care: Informed consumers of child care? *Australasian Journal of Early Childhood*, 36(1), 95.
- Feng, L. (2010). Hire today, gone tomorrow: new teacher classroom assignment and teacher mobility. *Education Finance and Policy*, 5(3), 278-316.
- Feng, L., & Sass, T. (2012). *Teacher quality and teacher mobility*. Andrew Young School of Policy Studies Research Paper Series, (12-08).
- Gay, L. R., & Airasian, P. (2003). *Educational Research: Competencies for analysis and applications* (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- General Accounting Office (GAO). (1990). U.S. *Early Childhood Education: What Are the Costs of High Quality Programs?* HRD-90-43BR. Washington, DC: GAO.
- General Accounting Office (GAO). (2009). *TEACHER QUALITY Sustained Coordination among Key Federal Education Programs Could Enhance State Efforts to Improve Teacher Quality*. July 2009 GAO-09-593.
- Getz, D. M. (2009). *Men's and Women's Earnings for States and Metropolitan Statistical Areas: 2009*. U.S. Department of Commerce Economics and Statistics Administration.
- Gevers Deynoot-Schaub, M. J. J.M. & Riksen-Walraven, J.M. A. (2005). Child care under pressure: The quality of Dutch centers in 1995 and 2001. *Journal of Genetic Psychology*, 166, 280-296.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994). *The New Production of Knowledge: the Dynamics of Science and Research in Contemporary Societies*. London: Sage.
- Glynn, S. j. (2012). *Child Care Families Need More Help to Care for Their Children*. Retrieved April 27, 2013, from <http://www.scribd.com/doc/103047072/Fact-Sheet-Child-Care>
- Goe, L. (2007). *The link between teacher quality and student outcomes: A research synthesis*. Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved July 22, 2011, from <http://www.tqsource.org/link.php>
- Halpert, M. A. (2011). *Factors Affecting Teacher Satisfaction in an Urban School District Halpert*. ProQuest LLC, Ed.D. Dissertation, Arizona State University 2011.
- Hamel, J., Dufour, S., & Fortin, D. (1993). *Case study methods*. Newbury Park, CA: Sage.

- Hanushek, E.A. & Rivkin, S. (2007). Pay, working conditions, and teacher quality. *The Future of Children*, 17(1), 69-86.
- Harms, T., & Clifford, R. (1980). *Early Childhood Environment Rating Scale*. New York: Teachers College Columbia University.
- Harms, T., Clifford, R. M., & Cryer, D. (1998). *Early Childhood Environment Rating Scale-Revised*. New York, NY: Teachers College Press.
- Heckman, J. J., & Masterov, D. V. (2007). The productivity argument for investing in young children. *Applied Economic Perspectives and Policy*, 29(3), 446-493.
- Hofstede, G. (1997). *Cultures and organizations: software of the mind*. London: McGraw Hill.
- Hofstede, G. (2001). *Culture's Consequences: International Differences in Work Related Values*, 2001 edition, Thousand Oaks, CA: Sage Publications, Inc.
- Holloway, S. D., & Reichhart-Erickson, M. (1998). The relationship of day care quality to children's free play behavior and social problem-solving skills. *Early Childhood Research Quarterly*, 3, 39-53.
- Hsieh, C. Y. (2008). *Parental Choice of Preschool in Taiwan*, Doctor Dissertation, University of Bath.
- Hsieh, M. F. (2004). Teaching practices in Taiwan's education for young children: Complexity and ambiguity of developmentally appropriate practices and/or developmentally inappropriate practices. *Contemporary Issues in Early Childhood*, 5(3), 309-329.
- Hsu, J., Hsu, J. C., Huang, S. Y., Leong, L., & Li, A. M. (2003). Are leadership styles linked to turnover intention: An examination in Mainland China? *Journal of American Academy of Business*, 3, 37-43.
- Hung, C. C. Huang, G. S., Lin, C., & Gau, B.S. (2008). Asthma Care Issues in Kindergarten Teachers: An Evaluation on Knowledge, Attitudes, and Self-Efficacy of Asthma. *Journal of Asthma*, 45(7), 539-544.
- Hung, C. L. (2012). Job stress and coping strategies among early childhood teachers in Central Taiwan. *Educational Research and Reviews*, 7(23), 494-501.

- Huang, C.M. (2008). The exploration of the policies of Five-year-old Underprivileged Children Head-Start Program. *E-Soc Journal*, 68. ISSN : 1609-2503. Retrieved May 27, 2011, from <http://www.nhu.edu.tw/~society/e-%20j/68/68-25.htm>
- 黃春梅 (2008)。「扶持五歲弱勢幼兒及早教育計畫」之政策探討。*網路社會學通訊*, 68。
- Hung, S. J. (2009). *A Study of Kindergarten Practice Teachers' Teaching Beliefs, Achievement Motivation and Teaching Commitments -- Exemplified by Kindergarten Teacher Education Program Trainees in Central Taiwan*. Unpublished master's thesis, Chaoyang University of Technology.
- Huntsman, L. (2008). *Determinants of Quality in Child Care: A Review of Research Evidence*, Center for Parenting & Research, NSW Department of Community Services, Sydney.
- Hydon, C. (2013). Pursuing best practice: What does it take to drive continuous improvement? *Every Child*, 19(1), 26.
- Irvine, S., & Price, J. (2014). Professional conversations: a collaborative approach to support policy implementation, professional learning and practice change in ECEC. *Australasian Journal of Early Childhood*. (In Press). Retrieved June 20, 2014, from <http://eprints.qut.edu.au/68097/>
- Jackson, C. K. (2012). Recruiting, retaining, and creating quality teachers *Nordic Economic Policy Review*, 3(1)
- Jang, S. (2007). *A Case Study of Private Kindergarten Teachers' Turnover*. Graduate Institute of Early Childhood Education. Unpublished master's thesis, National Chiayi University, Taiwan.
- Jarvie, W. K. (2012). Qualitative Research in Early Childhood Education and Care Implementation. *International Journal of Child Care and Education Policy*, 6(2), 35-43.
- Jonassaint, C. R., Siegler, I. C., Barefoot, J. C., Edwards, C. L., & Williams, R. B. (2011). Low life course socioeconomic status (SES) is associated with negative NEO PI-R personality patterns. *International journal of behavioral medicine*, 18(1), 13-21.
- Judge, T. A., & Kammeyer-Mueller, J.D. (2007). 'Personality and career success', In Gunz, H. & Peiperl, M. (eds), *Handbook of Career Studies*. London: Sage.



- Kamerman, S. B., & Gatenio-Gabel, S. (2007). Early childhood education and care in the United States: An overview of the current policy picture. *International Journal of Child Care and Education Policy*, 1(1), 23-34.
- Karvelas. (2012). *Starting well benchmarking early education across the world*. A report from the Economist Intelligence Unit, Lien 2012. Retrieved April 23, 2013, from [http://www.lienfoundation.org/pdf/publications/sw\\_report.pdf](http://www.lienfoundation.org/pdf/publications/sw_report.pdf)
- Katz L. (1972). Developmental stages of preschool teachers. *Elementary School Journal*, 73(1), 50–54.
- Katz, L. (1993). *Multiple perspectives on the quality of early childhood programs*. ERIC # ED355 041.
- Kelley, P., & Camilli, G. (2007). *The impact of teacher education on outcomes in center-based early childhood education programs: A meta-analysis*. NIEER Working Paper. New Brunswick, NJ: National Institute for Early Education Research.
- Kelley, R. C., Thornton, B., & Daugherty, R. (2005). Relationships between measures of leadership and school climate. *Education-Indianapolis Then Chula Vista*, 126 (1), 17.
- Kontos, S., & Wilcox-Herzog, A. (2001). How do education and experience affect teachers of young children? *Young Children*, 56(4), 85-91.
- Kuo, T. S., & Lin, L. L. (2008). The Study of Preschool Market from the Perspective of Parental Choices: An Example of Yunlin County. *Operating Management Review*, 4(1).
- Kyriacou, C. (1987). Teacher stress and burnout: an international review. *Educational Research*, 29(2), 146–152.
- Lall, S., Selod, H., & Shalizi, Z. (2006). “*Rural-urban migration in developing countries: a survey of theoretical predictions and empirical findings*”, Policy Research Working Paper No. 3915, The World Bank.
- Lara-Cinisomo, S., Fuligni, A. S., Daugherty, L., Howes, C., & Karoly, L. A. (2009). A qualitative case study of early childhood educators’ beliefs about key preschool classroom experiences. *Early Childhood Research and Practice*, 11(1), 1–8.
- Lawrence-Lightfoot, S. (2004). Building bridges from school to home. *Instructor*, 114 (1), 24-28.

- Lee, C.T. (2010). The inspire of the NAYEC accreditation criteria to the teaching evaluation development of the kindergarten in Taiwan. *Journal of Toko University*, 5(1), 1-16, ISSN 1992.  
李家宗 (2010)。美國幼教學會教學評鑑標準對我國幼稚園教學評鑑發展之啟示。 *稻江學報*，5(1)。
- Lee, I.F. (2006). Rethinking the Taiwanese Preschool Vouchers, Hong Kong. *Journal of Early Childhood*, 5(2), 33-40.
- Lee, I.F. (2009). Global and Local Problematics of Vouchers: An Example of Educational Reform Discourse toward Education for All International Critical Childhood. *Policy Studies*, 2(1).
- Lee, L. S. (2007). The status of integrating kindergarten and nursery school and future development. *Inservice Education Bulletin*, 24(3).
- Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning: a review of research for the Learning from Leadership Project*. New York, NY: The Wallace Foundation.
- Li, M. T. (2012). The public kindergartens' new challenges and the possible solutions. *Forum of Educational Administration*, 4(1), 113-132.  
李明堂 (2012)。迎接新的 [幼兒園] 公立附幼機構面臨的挑戰與因應。 *教育行政論壇*，4(1)，113-132。
- Liang, P.M. (2001). *Parents' perceived quality of and satisfaction with early childhood programs: A study of Taiwanese parents who have a child enrolled in kindergarten*. Doctoral dissertation, The Pennsylvania State University.
- Lin, C. M. (2004). *A study of early childhood teachers' competency and knowledge*. Retrieved Jun 21, 2011, from <http://datas.ncl.edu.tw/cgi-bin/theabs/1/flyweb.cgi>
- Lin, H. F. (2011). A meta-analysis on preschool evaluation researches in Taiwan. *International Journal of Research Studies in Education*, 1(1).
- Lin H. F., & Ching, M. J. (2012). Managing the Taiwan kindergarten evaluation system. *International Journal of Research Studies in Management*, 1(1), 77-84.
- Lin, H. L., Gorrell, J., & Silvern, S. B. (2001). Taiwan's early childhood pre-service teachers' professional beliefs. *Journal of research in childhood education*, 15(2), 242-256.
- Lin, H. L., Lawrence, F. R., & Gorrell, J. (2003). Kindergarten teachers' views of children's readiness for school. *Early Childhood Research Quarterly*, 18(2), 225-237.

- Lin, J. (2005) *School bus safety checklist introduced in wake of death*, Taipei Times, Mon, Sep 26, 2005 – P. 2. Retrieved Jun 21, 2011, from <http://www.taipeitimes.com/News/taiwan/archives/2005/09/26/2003273255>
- Lin, P. J. (2002), *Looking At the Right of Early Childhood Education through Policy Perspective*. Paper presented at the Taipei Municipal Teachers College: The conference of human right on campus.
- Lin, Y. C., & Yawkey, T. D. (2013). Does Play Matter to Parents? Taiwanese Parents' Perceptions of Child's Play. *Education*, 134(2), 244-254.
- Lin, Y. S. (2011). *A Study on Work Stress, Social Support and Life Satisfaction of the Kindergarten Teachers*. Unpublished master's Thesis, Nanhua University.
- Lin, Y. W. (2007). *Current critical issues of early childhood education in Taiwan*. AERA 2007 Annual Meeting in Chicago.
- Lincoln, Y. S. & Guba, EG. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.
- Liou, T. H. (2006). Parents' Expectations and Preconceptions with Regard to their Young Children's Learning—Exploring Two Preschool Programs. *Journal of Taiwan Normal University: Education*, 51(1), 131-158.  
劉慈惠 (2006)。學前幼兒被期待學些什麼？以兩所幼稚園家長為例。師大學報(教育類)，51(1)，131-158。
- Lo, F.C. (2012). Study of impact made by Preschool Education Policy in Taiwan - Take Preschool Education Voucher, National Preschool Education, and Integrated Preschool and Nursery School Policy as Examples, *Forum of Educational Administration*, 4(1), 87-112.  
羅鳳珍 (2012)。我國幼兒教育政策之評估以幼兒教育券、國幼班、幼托整合政策為例。「2012 教育行政研究所學術研究會暨所友會聯合論文發表觀摩會」，4(1)，87-112。
- Louis, K., Leithwood, K., Wahlstrom, K., & Anderson, S. (2010). *Learning from leadership: investigating the links to improved student learning*. Final report of research findings. Report Commissioned by The Wallace Foundation.
- Love, J. M., Schochet, P. Z., & Meckstroth, A. L. (1996). "Are They in Any Real Danger? What Research Does—and Doesn't—Tell Us about Child Care Quality and Children's Well-Being." Report. Princeton, NJ: Mathematica Policy Research.
- Low, K. C. P. (2010). Teaching and Education: the ways of Confucius. *Educational Research*, 1(12), 681-686.

- Lu, M. Q., Shi, H. Y. (2000). A Study on the Feasibility of Implementing the Policy of Nursery Education Voucher in Taiwan. *Journal of Taipei Municipal Teachers College*.
- Macdonald D (1999). Teacher attrition: a review of literature. *Teaching and Teacher Education*, 15(1999), 835-848.
- Markowitsch, J., & Plaimauer, C. (2009). Descriptors for competence: towards an international standard classification for skills and competences. *Journal of European Industrial Training*, 33(8/9), 817-837.
- Marshall N. (2004). The quality of early child care and children's development. *Curr Dir Psych Sci*, 13, 165-68.
- Martin, N. K., Yin, Z. I., & Mayall, H. (2006). *Classroom management training, teaching experience and gender: Do these variables impact teachers' attitudes and beliefs toward classroom management style*. In Annual Conference of the Southwest Educational Research Association, Austin, TX.
- Maslow, A., & Lowery, R. (Ed.). (1998). *Toward a psychology of being* (3rd ed.). New York: Wiley & Sons.
- Mitchell, C., & Sackney, L. (2011). *Profound improvement: Building capacity for a learning community*. Taylor & Francis.
- Ministry of Education. (MOE). (2009). *Voucher Policy Project*, Retrieved May 25, 2011, from <http://www.moe.gov.tw/pages/list.aspx?Node=1252&Type=1&Index=9&wid=45a6f039-fcaf-44>
- Ministry of Education, Republic of China (MOE). (2009a). *Regulations of Childcare*. Retrieved April 12, 2010, from <http://www.ece.moe.edu.tw/laws.html>
- Ministry of Education, Republic of China (MOE). (2010). *Summary of the Expand Five-year-old Underprivileged Children Head-Start Program*. Retrieved Oct 2, 2010, from <http://english.moe.gov.tw/ct.asp?xItem=8194&ctNode=783&mp=3>
- Ministry of Education, Republic of China (MOE). (2010a). *Main Statistics (~2009) Summary of Education at All Levels - In Brief (1991-2009)*. Retrieved NOV 2, 2010, from [http://www.edu.tw/files/site\\_content/b0013/f.xls](http://www.edu.tw/files/site_content/b0013/f.xls)
- Ministry of Education. (2011a). *The project of free tuition for five year-old children*. Retrieved April 23, 2013, from <http://www.edu.tw/pages/list.aspx?Node=1252&Type=1&Index=9&wid=45a6f039-fcaf-44fe-830e-50882aab1121>

- Ministry of Education. (2012). *Summary of Education at All Levels in SY 2011*. Retrieved April 27, 2013, from <http://english.moe.gov.tw/ct.asp?xItem=12862&ctNode=1184&mp=2>
- Ministry Of Justice. (2011). *Laws & Regulations Database, Child Education and Care Act (CECA)*. Retrieved Dec 8, 2011 from <http://law.moj.gov.tw/LawClass/LawAll.aspx?PCode=H0070031>
- Montgomery, C., & Rupp, A. A. (2005). A meta-analysis for exploring the diverse causes and effects of stress in teachers. *Canadian Journal of Education*, 28(3), 458-486. Retrieved from ProQuest database.
- Morgan, P. L., Farkas, G., Hillemeier, M., & Maczuga, S. (2009). Risk factors for learning- related behavior problems at 24 months of age: Population-based estimates. *Journal of Abnormal Child Psychology*, 37, 401-413.
- Moss, P., & Dahlberg, G. (2008). Beyond quality in early childhood education and care—Languages of evaluation. *New Zealand Journal of Teachers' Work*, 5(1), 3-12.
- NACCRRA. (2009). *Parents' perceptions of child care in the United States*. NACCRRA's national parent poll 2008. Arlington, VA.
- NAEYC. (2008). *Overview of the NAEYC Early Childhood Program Standards*. Retrieved Nov 8, 2010, from <http://www.naeyc.org/files/academy/file/OverviewStandards.pdf>
- NAEYC. (2013). *Accreditation: All Criteria Document*. Retrieved April 6, 2013, <http://www.naeyc.org/academy/primary/viewstandards>
- National Child Care Information and Technical Assistance Center (NCCIC), Administration, Administration for Children and Families, U.S. Department of Health and Human Services. (2011). *Child Care Terminology*. Retrieved Apr.3, 2012, from <http://nccic.acf.hhs.gov/poptopics/terminology.html>
- National Quality Standard (NQS). (2009). *National Quality Standard for Early Childhood Education and Care and School Age Care, Council of Australian Governments*. Retrieved Nov 2, 2010, from <http://www.eduweb.vic.gov.au/edulibrary/public/earlychildhood/nqf/nationalqualitystandard.pdf>
- Nelson, B. G. (2002). *The Importance of Men Teachers and Reasons Why There Are So Few: A Survey of the National Association of the Education of Young Children (NAEYC) Members*. Minneapolis, MN: MenTeach.
- Neugebauer, R. (2009). Where are we headed with center accreditation? Trends in quality assurance. *Exchange March/April*, 14–17.

- NICHD Early Child Care Research Network. (NICHD). (2000). Characteristics and quality of child care for toddlers and preschoolers. *Applied Developmental Science*, 4, 116-135.
- NICHD Early Child Care Research Network. (2002). Child-care structure, process, outcome: Direct and indirect effects of child care quality on young children's development. *Psychological Science*, 13(3), 199-206.
- NICHD, Early Child Care Research Network. (2006). Child care effect sizes for the NICHD Study of Early Child Care and Youth Development. *American Psychologist*, 61(2), 99-116.
- NIEER. (2004). PreSchool. *Policy Matters*, Issue 6, Rutgers University, NJ
- Organization for Economic Co-operation and Development (OECD). (2005). *Teachers Matter: Attracting, Developing and Retaining Effective Teachers* – ISBN 92-64-01802-6 © OECD 2005.
- Organization for Economic Co-operation and Development (OECD). (2006). *Starting Strong II: Early Childhood Education and Care*, OECD, Paris.
- Organization for Economic Co-operation and Development (OECD). (2010). *Education at a Glance 2010: OECD Indicators - What proportion of national wealth is spent on education? - Indicator B2*. Retrieved Dec 29, 2010, from [http://www.oecd.org/document/55/0,3746,en\\_2649\\_39263231\\_46349815\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/55/0,3746,en_2649_39263231_46349815_1_1_1_1,00.html)
- Organization for Economic Co-operation and Development (OECD). (2011). *Doing Better for Children*, OECD Publishing. Retrieved Dec 29, 2010, from <http://www.oecd.org/social/family/doingbetter>
- Ou, S. (2005). Pathways of long-term effects of an early intervention program on educational attainment: Findings from the Chicago longitudinal study. *Applied Developmental Psychology*, 26(5), 578-611.
- Papadomichelaki, X., & Mentzas G. (2009). "A Multiple-Item Scale for Assessing E-Government Service Quality", M. A. Wimmer et al., (Eds.): EGOV 2009, LNCS 5693, 163-175. Springer Verlag Berlin Heidelberg.
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). "E-S-QUAL: A Multiple-item Scale for Assessing Electronic Service Quality", *Journal of Service Research*, 7(3), 213-234.
- Patton, M. Q. (1999). "Enhancing the quality and credibility of qualitative analysis." *HSR: Health Services Research*. 34(5), Part II. 1189-1208.

- Penn, H. (2011). *Quality In Early Childhood Services-An International Perspective: An International Perspective*. McGraw-Hill International.
- People First Solutions. (2005). "*The Hidden Cost of Attrition: Why Retaining Top Talent Remains Mission Critical*," Vancouver, British Columbia, undated, [www.peoplefirstsolutions.com](http://www.peoplefirstsolutions.com). According to another estimate, "the true cost of an average performer leaving is 1.5 times salary." Allan Schweyer, "An Internal War for Talent," Inc. Magazine, April 1, 2005, Retrieved Apr.16, 2012, from <http://www.inc.com/resources/recruiting/articles/20050401/talentwars.html>.
- Phillipsen L.C., Burchinal, M.R., Howes, C. Cryer, D. (1997). The predication of process quality from structural features of child care. *Early Childhood Research Quarterly*, 12, 281-303.
- Pont, B., Nusche, D. & Moorman, H. (2008). Improving school leadership, *policy and practice*, 1, Paris: OECD.
- Queeney, D. S. (2002). Continuing professional education. In A. L. Wilson & E. R. Hayes (Eds.), *Handbook of adult and continuing education* (pp. 375-391). San Francisco: Jossey-Bass.
- Queensland Government, (2012). Queensland *Kindergarten Funding Scheme*. Retrieved Sep 9, 2012, from <http://deta.qld.gov.au/earlychildhood/service/access-kindy/kindy-fund-scheme.html>
- Rao, N., Koong, M., Kwong, M. & Wong, M. (2003). Predictors of preschool process quality in a Chinese context. *Early Childhood Research Quarterly*, 18(3), 331-350.
- Reid, J. L. (2011). *High-quality preschool: The relationship between the socio-economic composition of preschool classrooms and children's learning*. Teachers College, Columbia University. ProQuest Dissertations and Theses, 216. Retrieved Sep 29, 2012, from <http://search.proquest.com/docview/903266028?accountid=10118>. (903266028).
- Rentzou, K., & Sakellariou, M. (2013). Researcher's and parents' perspectives on quality of care and education. *Early Child Development and Care*, 183(2), 294-307.
- Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes*. Washington, D.C.: Economic Policy Institute.
- Richardson, R. C., Tolson, H., Huang, T., & Lee, Y. (2009). Character education: lessons for teaching social and emotional competence. *Children & Schools*, 31(2), 71-78.

- Riley, D. A., Roach, A., Adams, D. & Edie, D. (2005). Section III – Policy affecting and evaluation of quality: From research to policy: In search of an affordable statewide system for rating child care quality. *Early Education and Development* 16(4), 493-504.
- Robson C. *Real world research*. 3rd ed. Chichester: Wiley; 2011.
- Rockoff, J. E., Jacob, B. A., Kane, T. J., & Staiger, D. O. (2011). Can you recognize an effective teacher when you recruit one? *Education*, 6(1), 43-74.
- Rubin, H. J. & Rubin, I. S. (1995). *Qualitative Interviewing: The Art of Hearing Data*. London: SAGE.
- Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., & Hunt, S. (2008). *Influences on Children's Attainment and Progress in Key Stage 2: Cognitive outcomes in Year 6*. London: DCSF.
- Seashore-Louis, K., Wahlstrom, K. L., Leithwood, K., & Anderson, S. E. (2010). *Investigating the Links to Improved Student Learning*. The Wallace Foundation. Retrieved on December 20, 2011, Retrieved from <http://www.wallacefoundation.org/knowledge-center/school-leadership/key-research/Pages/Investigating-the-Links-to-Improved-Student-Learning.aspx>
- Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of applied psychology*, 84, 416-427.
- Shank, G. D. (2002). *Qualitative research: A personal skills approach*. Prentice Hall.
- Shen, C. (2005). *Early childhood educators' perceptions of quality and school climate in preschool programs*. The Pennsylvania State University). *ProQuest Dissertations and Theses*. Retrieved Apr.22, 2012, from <http://search.proquest.com/docview/305448866?accountid=10118>. (305448866).
- Shen C. S., & Wang H. L. (2013). A Research of Parents' Satisfaction of Children with Special Needs on Inclusive Education—An Example of Nursery in Pingtung County. *Journal of Child Care*, 10, 67-90.
- 沈佳生、汪慧玲 (2013)。特殊幼兒家長對融合教育滿意度之研究-以屏東縣托兒所為例。 . *幼兒保育學刊*, 10, 67-92。
- Silverman, D. (2000). *Doing qualitative research*. London: Sage.
- Skaggs, G., & Bodenhorn, N. (2006). Relationships between implementing character education, student behavior, and student achievement. *Journal of Advanced Academics*, 18(1), 82-114.
- Skilbeck, M. & Connell, H. (2004). *Teachers for the future*. A report to the Teacher Quality and Educational Leadership Taskforce of the MCEETYA Retrieved Apr. 6, 2012, from [http://www.mceecdya.edu.au/verve/\\_resources/teachersforthefuture\\_file.pdf](http://www.mceecdya.edu.au/verve/_resources/teachersforthefuture_file.pdf)



- Steyn, G. M. & Schulze, S. (2003). Assuring Quality of Module in Human Resource Management. *Learners' Perceptions. Education*, 123(4), 668-680.
- Stoney, L., Mitchell, A., & Warner, M. E. (2006). Smarter reform: Moving beyond single-program solutions to an early care and education system. *Community Development*, 37(2), 101-115.
- Stufflebeam, D. L. (1966). A depth study of the evaluation requirement. *Theory Into Practice*, 5(3), 121-133.
- Sun L.C. (2011). The relationship between parental beliefs about child development and child's social emotional behavior. *Journal of Early Childhood Education & Care Chiayi*, 6, 41-63.  
孫麗卿 (2011)。父母親的兒童發展信念和幼兒社會情緒行為之相關研究。幼兒教保研究, 6, 41-63。
- Sung, H.C. (2007). *The study on regular teacher's teaching problems in preschool inclusive classroom*. Unpublished master's thesis, National Pingtung University of Education, Pingtung, Taiwan.
- Taffel, R. (2001). Getting through to difficult kids and parents. New York: The Guilford Press. Trumbull, E., Rothstein-Fisch, C., & Hernandez, E. (2003). Parent involvement in schooling: According to whose values? *e School Community Journal*, 13(2), 45-72.
- Taguma, M., Litjens, I., & Makowiecki, K. (2012). Quality Matters. In *Early Childhood Education and Care*. Finland (Paris, OECD).
- TALIS, (2008). *Teaching and Learning International Survey*, Technical Report, Retrieved Apr13, 2010, from <http://www.oecd.org/dataoecd/16/14/44978960.pdf>
- Tedlock, B. (2003). Ethnography and ethnographic representation. *Strategies of qualitative inquiry*, 2, 165-213.
- The Australian. (2012). *Child care is a priority issue*. Retrieved April 28, 2013, from <http://www.theaustralian.com.au/opinion/editorials/child-care-is-a-priority-issue/story-e6frg71x-1226522291182>
- Tout, Kathryn, Zaslow, M., & Berry, D. (2006). Quality and qualifications: Links between professional development and quality in early care and education settings. In *Critical Issues in Early Childhood Professional Development*, 77-110. Edited by M. Zaslow and I. Martinez-Beck. Baltimore, Md.: Brookes.
- Tran, T. T. (2013). Is the learning approach of students from the Confucian heritage culture problematic? *Educational Research for Policy and Practice*, 12(1), 57-65.

- Tsai, C. M. (2002). Extending one-year national education to pre-school education has to concern about the quality. *Teacher Saying*, 164, 4-20.
- Tseng, M. H. (2010). *Image of a good kindergarten teacher: from the perspective of parents and kindergarteners*. Unpublished master's thesis, National Pingtung University of Education, Taiwan.  
曾美華 (2010)。幼稚園好教師形象之探討: 從家長及幼兒的角度。國立屏東教育大學幼兒教育系碩士論文, 未出版, 屏東, 台灣。
- Tsui, A. B. (2003). *Understanding expertise in teaching: Case studies of ESL teachers*. New York: Cambridge University Press.
- Tsui, A. B. (2005). Expertise in teaching: Perspectives and issues. In K. Johnson (Ed.), *Expertise in second language learning and teaching* (pp. 167-189). New York: Palgrave Macmillan.
- U.S. Bureau of Labor Statistics. (2010). *Occupational Outlook Handbook, 2010-11 Edition*. Retrieved May 22, 2013, from <http://stats.bls.gov/oco/ocos170.htm#earnings>
- U.S. Bureau of Labor Statistics, Department of Labor. (2012). *Occupational Outlook Handbook, 2012-13 Edition, Kindergarten and Elementary School Teachers*. Retrieved Dec, 12, 2012, from <http://www.bls.gov/ooh/education-training-and-library/kindergarten-and-elementary-school-teachers.htm>
- U.S. Department of Education. (2007). *No child left behind: Teacher to teacher initiative*. Washington, DC: Author. Retrieved December, 12, 2010, from <http://www.ed.gov/teachers/how/tools/initiative/factsheet.pdf>
- U.S. Department of Health and Human Services. (2005). *The Status of Children in Head Start Programs*, Biennial Report to Congress. Retrieved December, 22, 2010, from [http://www.acf.hhs.gov/programs/ohs/about/biennial\\_report\\_2005.pdf](http://www.acf.hhs.gov/programs/ohs/about/biennial_report_2005.pdf)
- U.S. Department of Health and Human Services. (2006). *Good Start, Grow Smart*, Retrieved Dec, 22, 2010, from <http://www.acf.hhs.gov/programs/occ/initiatives/gsgs/fedpubs/GSGSBooklet.pdf>
- Vandell, & Wolfe. (2000). *Child Care Quality : Does It Matter and Does It Need to be Improved ?* Institute for Research on Poverty Special Report no. 78. Retrieved Sep, 5, 2010, from <http://www.irp.wisc.edu/publications/sr/pdfs/sr78.pdf>
- Wang, C.C. (2002). Suggestions of Integrating Functions of Day-Care Centers and Kindergartens. *Early Childhood Education Yearly Journal*, 14, 1-20.
- Wang, H. L. (2005). *Early childhood educators' perceptions of professional competence in preschool settings*. Unpublished doctoral dissertation, The Pennsylvania State University.

- Wang, H.L., & Shen, C.S. (2011). The Relationship between Teaching Willingness and Background Experience among Teachers in Preschool Settings. *Journal of Child Care*, 9, 1-16.
- Wang, W.W. (2011). Issues in integrating kindergartens and nursery schools. *Taiwan Educational Review Monthly*, 1(1), 49-51.
- Wang, L.Y., & Chen, H. L, (2007). Models of Equal Educational Opportunity Policies for Rural Areas in Taiwan: Synthesis and Reflections, *Bulletin of Educational Resources and Research*, 36, 25-46.
- Watson, L. (2006). Pathways to a Profession: *Education and Training in Early Childhood Education and Care, Australia*, Final Report to the Department of Education, Science and Training, Retrieved January 5, 2013, from [www.dest.gov.au/sectors/school\\_education/publications\\_resources/profiles/pathways\\_to\\_a\\_profession.htm](http://www.dest.gov.au/sectors/school_education/publications_resources/profiles/pathways_to_a_profession.htm)
- Wayne, A. J., & Youngs, P. (2003). Teacher characteristics and student achievement gains: A review. *Review of Educational research*, 73(1), 89-122.
- Weiss, H. B., Caspe, M., & Lopez, M. E. (2006). *Family involvement in early childhood education*. Cambridge, MA: Harvard Family Research Project. Retrieved January 20, 2013, from <http://www.hfrp.org/publications-resources/browse-our-publications/family-involvement-in-early-childhood-education>
- Whitebook, M. (1995). What's good for child care teachers is good for our country's children. *Young Children*, 50, 40-44.
- Whitebook, M., Howes, C., & Phillips, D.A. (1998). *Worthy work, unlivable wages: The National Child Care Staffing Study, 1988-1997*. Washington, DC: Center for the Child Care Workforce.
- Whitebook, M. (2002). *Working for worthy wages: The child care compensation movement, 1970–2001*. New York, NY: Foundation for Child Development Working Paper Series. Retrieved September 10, 2012, from <http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1000&context=iir/cscce>
- Whitebook, M. (2003). *Early education quality: Higher teacher qualifications for better learning environments—A review of the literature*. Berkeley, CA: Center for the Study of Child Care Employment. Retrieved April 4, 2012, from <http://www.iir.berkeley.edu/cscce/pdf/teacher.pdf>
- Whitebook, M., Gomby, D., Bellm, D., Sakai, L., & Kipnis, F. (2009). *Teacher preparation and professional development in grades K-12 and in early care and education: Differences and similarities, and implications for research. Part I of Preparing teachers of young children: The current state of knowledge, and a blueprint for the future*. Berkeley, CA: Center for the Study of Child Care Employment, Institute for Research on Labor and Employment, University of California at Berkeley.

- Whitebook, M., Ryan, S., Kipnis, F., & Sakai, L. (2008). *Partnering for preschool: A study of center directors in New Jersey's mixed delivery Abbott Program*. Berkeley, CA: Center for the Study of Child Care Employment, University of California at Berkeley.
- WHSCDA, (2010). *NAEYC accredited*. Retrieved April 4, 2013, from <http://whscda.org/accreditations/naeyc.html>
- Woolfolk, E., Rosoff, B., & Hoy, W. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education*, 6(2), 137-148.
- Wu, Y. L. (2011). Taiwanese Preschool Teacher Education Students' Attributions for Studying, Occupational Knowledge, and Initial Teaching Commitment. *World Journal of Education*, 1(1), 15.
- Yamamoto Y., Li, J. (2012). What makes a high-quality preschool? Similarities and differences between Chinese immigrant and European American parents' views. *Early Childhood Research Quarterly* 27, 306–315.
- Yang, K. S., Tsai, R. G., & Yang, S. C. (2002). *The Report of Early Childhood Educational Survey*. Taipei: the Ministry of Education.
- Yin R.K. (2009). *Case study research, design and methods*. 4th ed. Los Angeles: Sage.

## Appendix A1: Tables in Chapters

Table 2.1

*Starting Well Index on Quality of Preschool Services across 45 Countries*

Starting with index on Quality of Preschool services across 45 countries														
Overall score		1) Social context		5%	2) Availability		25%	3) Affordability		25%	4) Quality		45%	
1	Finland	91.8	→1	Australia	100.0	1	Belgium	99.7	1	Norway	92.4	1	Finland	93.5
2	Sweden	91.7	→1	Belgium	100.0	2	Norway	98.6	2	Denmark	89.8	2	Sweden	90.2
3	Norway	88.9	→1	Czech Republic	100.0	3	UK	97.7	3	Sweden	86.7	3	UK	86.9
4	UK	87.9	→1	Denmark	100.0	4	Sweden	97.5	4	Finland	84.2	4	Norway	80.4
5	Belgium	84.7	→1	Finland	100.0	5	Finland	94.9	5	Belgium	78.5	5	Belgium	78.0
6	Denmark	83.5	→1	France	100.0	6	France	91.3	6	UK	77.6	6	New Zealand	77.3
7	France	81.0	→1	Germany	100.0	7	Spain	90.5	7	France	76.6	7	Netherlands	76.1
8	Netherlands	75.6	→1	Greece	100.0	8	Germany	88.6	8	Italy	75.6	8	Denmark	76.3
9	New Zealand	73.9	→1	Hong Kong	100.0	9	Denmark	87.0	9	New Zealand	71.9	9	France	75.5
10	South Korea	72.5	→1	Hungary	100.0	10	Portugal	85.8	10	Netherlands	70.7	10	South Korea	69.0
11	Germany	71.9	→1	Ireland	100.0	11	South Korea	82.0	11	Switzerland	70.4	11	Hong Kong	68.9
12	Austria	70.9	→1	Israel	100.0	12	Italy	81.4	12	Germany	66.6	12	Austria	68.6
13	Switzerland	69.9	→1	Italy	100.0	13	Ireland	79.8	13	Czech Republic	66.5	13	Japan	67.7
14	Spain	69.1	→1	Japan	100.0	14	Chile	77.8	14	Austria	65.4	14	Ireland	65.2
15	Portugal	68.7	→1	Netherlands	100.0	15	Czech Republic	76.0	15	South Korea	64.0	15	Portugal	64.5
16	Italy	68.4	→1	New Zealand	100.0	16	Austria	75.8	16	USA	63.0	16	Switzerland	63.1
17	Czech Republic	68.1	→1	Norway	100.0	17	Switzerland	75.6	17	Chile	62.1	17	Germany	62.4
18	Ireland	67.4	→1	Poland	100.0	18	Mexico	74.3	→18	Australia	60.6	18	UAE	62.3
19	Hong Kong	66.2	→1	Portugal	100.0	19	Hungary	74.0	→18	Spain	60.6	19	Taiwan	62.2
20	Chile	63.6	→1	Singapore	100.0	20	Netherlands	73.9	20	Hong Kong	60.0	20	Czech Republic	61.0
21	Japan	63.5	→1	South Korea	100.0	21	Canada	70.9	21	Singapore	59.8	21	Spain	58.6
22	Hungary	61.6	→1	Spain	100.0	22	Greece	68.5	22	Taiwan	59.2	22	USA	57.8
23	Israel	61.0	→1	Sweden	100.0	23	New Zealand	64.7	23	Israel	58.8	23	Greece	57.6
→24	UAE	60.3	→1	Switzerland	100.0	24	Israel	64.6	24	Japan	57.2	24	Australia	56.4
→24	USA	60.3	→1	Taiwan	100.0	25	Singapore	64.3	25	Poland	56.5	25	Israel	56.0
26	Canada	59.9	→1	UAE	100.0	26	Hong Kong	60.9	26	UAE	55.3	→26	Canada	54.5
27	Greece	59.4	→1	UK	100.0	→27	Argentina	59.0	27	Hungary	54.2	→26	Hungary	54.5
28	Australia	59.1	→1	USA	100.0	→27	Russia	59.0	28	Portugal	53.0	28	Italy	53.7
29	Singapore	58.8	→29	Austria	95.0	29	Poland	57.4	29	Ireland	52.5	29	Chile	53.0
30	Taiwan	58.4	→29	Canada	95.0	30	Japan	54.9	30	Canada	51.9	30	Singapore	50.6
31	Poland	56.1	→29	Chile	95.0	31	USA	54.4	31	Greece	45.4	31	Poland	50.2
32	Mexico	50.5	→29	China	95.0	32	Australia	54.3	32	Malaysia	42.6	32	Russia	48.0
33	Russia	49.9	→29	Malaysia	95.0	33	UAE	54.0	33	Argentina	39.4	33	Turkey	47.8
34	Argentina	43.0	→34	Argentina	90.0	34	South Africa	48.6	34	South Africa	36.9	34	Mexico	41.5
35	Turkey	39.9	→34	Russia	90.0	35	Ghana	48.5	35	Mexico	36.3	35	Malaysia	33.9
36	Malaysia	39.4	→36	Mexico	85.0	36	Thailand	47.9	36	Russia	36.0	36	South Africa	33.7
37	South Africa	38.8	→36	Thailand	85.0	37	Brazil	47.8	37	Thailand	31.4	37	Argentina	30.9
38	Thailand	37.9	→38	Brazil	80.0	38	Vietnam	43.6	38	Ghana	30.0	38	Thailand	30.6
39	Brazil	35.1	→38	Turkey	80.0	39	Taiwan	42.6	39	Philippines	24.8	39	Brazil	28.9
40	Ghana	34.3	40	Vietnam	70.0	40	Philippines	40.6	40	Brazil	24.7	40	Ghana	28.1
41	Vietnam	31.3	41	Philippines	60.0	41	Malaysia	35.1	41	Turkey	23.9	41	China	27.8
42	China	30.7	42	Indonesia	55.0	42	China	34.8	42	Indonesia	22.7	42	Vietnam	26.8
43	Philippines	30.5	43	South Africa	45.0	43	Turkey	33.5	43	India	19.5	43	Philippines	24.7
44	Indonesia	22.1	44	Ghana	40.0	44	India	21.8	44	Vietnam	19.2	44	Indonesia	24.0
45	India	21.2	45	India	15.0	45	Indonesia	11.5	45	China	10.0	45	India	22.5

Source: Karvelas, 2012.

Table 2.13

*Teacher Qualification Requirements in Classrooms in Taiwan, Australia, and the USA*

Children age	Taiwan	Australia Timeframe for compliance, 1 Jan 2014	USA
2-3	Classroom size $\leq 9$ 1 ECEC staff  Classroom size $> 9$ 2 ECEC staff	<ul style="list-style-type: none"> <li>• 50% of educators have (or are actively working towards) a Diploma level ECEC qualification</li> </ul> Other educators have (or are actively working towards) a Certificate III level ECEC qualification (or equivalent)  Classroom size $< 26$ (An early childhood teacher is in attendance for some of the time that the service is being provided to children.)  Classroom size $\geq 26$ (An early childhood teacher is in attendance at the service)	States' requirements
over 3	Classroom size $\leq 15$ 1 ECEC staff  Classroom size $> 15$ 2 ECEC staff  (Age 5 classes require more than one teacher with teacher's certificate)	Same as children aged 2-3	States requirements

Source: Adapted from Council of Australian Governments, 2009.

Table 2.15

*Total Fertility Rate on OECD Countries (2000-2010)*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia	1.76	1.73	1.76	1.75	1.76	1.79	1.82	1.92	1.96	1.90	1.89
Austria	1.36	1.33	1.39	1.38	1.42	1.41	1.41	1.38	1.41	1.39	1.44
Belgium	1.67	1.67	1.65	1.67	1.72	1.76	1.80	1.82	1.85	1.86	1.87
Canada	1.49	1.51	1.50	1.53	1.53	1.54	1.59	1.66	1.68	1.67	1.67
Chile	2.05	2.01	1.94	1.89	1.85	1.84	1.83	1.88	1.92	1.94	1.94
Czech Republic	1.14	1.15	1.17	1.18	1.23	1.28	1.33	1.44	1.50	1.49	1.49
Denmark	1.77	1.75	1.72	1.76	1.78	1.80	1.85	1.85	1.89	1.84	1.88
Estonia	1.39	1.34	1.37	1.37	1.47	1.50	1.55	1.63	1.65	1.62	1.63
Finland	1.73	1.73	1.72	1.76	1.80	1.80	1.84	1.83	1.85	1.86	1.87
France	1.87	1.88	1.86	1.87	1.90	1.92	1.98	1.96	1.99	1.99	1.99
Germany	1.38	1.35	1.34	1.34	1.36	1.34	1.33	1.37	1.38	1.36	1.39
Greece	1.26	1.25	1.27	1.28	1.30	1.33	1.40	1.41	1.51	1.52	1.51
Hungary	1.33	1.31	1.31	1.28	1.28	1.32	1.35	1.32	1.35	1.33	1.26
Iceland	2.08	1.95	1.93	1.99	2.03	2.05	2.07	2.09	2.14	2.22	2.20
Ireland	1.90	1.96	1.98	1.98	1.95	1.88	1.90	2.03	2.10	2.07	2.07
Israel	2.95	2.89	2.89	2.95	2.90	2.84	2.88	2.90	2.96	2.96	3.03
Italy	1.26	1.25	1.27	1.29	1.33	1.32	1.35	1.37	1.42	1.41	1.41
Japan	1.36	1.33	1.32	1.29	1.29	1.26	1.32	1.34	1.37	1.37	1.39
Korea	1.47	1.30	1.17	1.18	1.15	1.08	1.12	1.25	1.19	1.15	1.23
Luxembourg	1.78	1.66	1.63	1.62	1.66	1.62	1.64	1.61	1.60	1.59	1.63
Mexico	2.77	2.60	2.46	2.34	2.25	2.20	2.17	2.13	2.10	2.08	2.05
Netherlands	1.72	1.71	1.73	1.75	1.73	1.71	1.72	1.72	1.77	1.79	1.80
New Zealand	1.98	1.97	1.89	1.93	1.98	1.97	2.01	2.17	2.18	2.12	2.15
Norway	1.85	1.78	1.75	1.80	1.83	1.84	1.90	1.90	1.96	1.98	1.95
Poland	1.37	1.32	1.25	1.22	1.23	1.24	1.27	1.31	1.39	1.40	1.38
Portugal	1.56	1.46	1.47	1.44	1.40	1.41	1.36	1.33	1.37	1.32	1.37
Slovak Republic	1.29	1.20	1.19	1.20	1.24	1.25	1.24	1.25	1.32	1.41	1.40
Slovenia	1.26	1.21	1.21	1.20	1.25	1.26	1.31	1.31	1.53	1.53	1.57
Spain	1.23	1.24	1.26	1.31	1.32	1.34	1.38	1.39	1.46	1.39	1.38
Sweden	1.55	1.57	1.65	1.72	1.75	1.77	1.85	1.88	1.91	1.94	1.98
Switzerland	1.50	1.38	1.39	1.39	1.42	1.42	1.44	1.46	1.48	1.50	1.54
Turkey	2.27	2.37	2.17	2.09	2.11	2.12	2.12	2.15	2.15	2.07	2.03
United Kingdom	1.64	1.63	1.64	1.71	1.77	1.79	1.84	1.90	1.96	1.94	1.98
United States	2.06	2.03	2.01	2.04	2.05	2.05	2.10	2.12	2.08	2.00	1.93
OECD average	1.68	1.64	1.63	1.63	1.65	1.65	1.68	1.71	1.75	1.74	1.74

Source: OECD, 2010.

Table 4.1

*Perceptions of Key Factors Influencing ECEC Quality*

Participant Categories	Key factors	Frequency	Interview duration
Individual interview - PN principal	1. Teacher quality	134	1h 30m
	2. Teaching & Caring	64	
	3. Government policy	61	
	4. Physical environment	14	
	5. Staff-child ratios	8	
	6. Principals' leadership	5	
Teachers' Focus Group - PN	1. Teacher quality	26	1h 30m
	2. Teaching & Caring	18	
	3. Government policy	9	
	4. Physical environment	9	
	5. Parent-teacher communication	6	
	6. Staff -child ratios	5	
	7. Principals' leadership	2	
Parents' Focus Group - PN	1. Teacher quality	94	1h 30m
	2. Teaching & Caring	44	
	3. Government policy	21	
	4. Parent-teacher communication	5	
	5. Staff-child ratios	1	
	6. Principals' leadership	1	
Individual interview - PPN principal	1. Teacher quality	48	1h 30m
	2. Teaching & Caring	44	
	3. Government policy	21	



	4. Staff-child ratios	10	
	5. Physical environment	6	
Teachers' Focus Group - PPN	1. Teacher quality	96	1h 30m
	2. Teaching & Caring	37	
	3. Government policy	21	
	4. Staff-child ratios	9	
	5 Parent-teacher communication	2	
	6. Principals' leadership	1	
Parents' Focus Group - PPN	1. Teacher quality	73	1h 30m
	2. Teaching & Caring	37	
	3. Government policy	6	
	4. Parent-teacher communication	7	
	5 Physical environment	2	
	6. Principals' leadership	2	
Individual interview - PK principal	1. Teacher quality	145	2h
	2. Teaching & Caring	93	
	3. Government policy	28	
	4. Physical environment	14	
	5 Parent-teacher communication	9	
	6. Principals' leadership	5	
Teachers' Focus Group - PK	1. Teacher quality	168	2h
	2. Teaching & Caring	99	
	3. Government policy	36	
	4. Principals' leadership	12	

	5. Parent-teacher communication	2	
Parents' Focus Group - PK	1. Teacher quality	109	1h 30m
	2. Teaching & Caring	45	
	3. Government policy	23	
	4. Physical environment	7	
	5. Parent-teacher communication	4	
	6. Staff-child ratios	4	
	7. Principals' leadership	1	
Individual interview - Evaluator A	1. Teaching & Caring	56	1h
	2. Teacher quality	46	
	3. Government policy	36	
Individual interview- Evaluator B	1. Teaching & Caring	42	1h
	2. Government policy	24	
	3. Teacher quality	17	
Individual interview - Evaluator C	1. Teacher quality	36	1h
	2. Teaching & Caring	27	
	3. Government policy	8	
	4. Staff-child ratios	2	
	5. Parent-teacher communication	2	
	6. Principals' leadership	2	
Individual interview - GO	1. Teacher quality	32	1h 30m
	2. Teaching & Caring	27	
	3. Government policy	26	
	4. Parent-teacher communication	1	

Table 4.2

*Number of Participant Groups mentioning Key Factors in ECEC Quality*

Key factors	Number of preschool-based participant groups	Number of non-preschool-based participant groups (Evaluators and the GO)	Number of participant groups in total
1. Teacher quality	9	4	13/13
2. Teaching & Caring	9	4	13/13
3. Government policy	9	4	13/13
4. Parent-teacher communication	7	2	9/13
5. Principals' leadership	8	1	9/13
6. Staff-child ratios	5	1	6/13
7. Physical environment	6	0	6/13

Table 4.3

*Queensland Government low SES Subsidy Scheme*

For kindergarten services, this is a per child loading of 45% (\$1057.50) of the standard subsidy rate for services operating in locations within the bottom 20% of Statistical Local Areas (SLA) as identified using the Socio-Economic Indexes for Areas (SEIFA)** (SEIFA 1 and 2 areas) and a per child loading of 30% (\$705) of the standard subsidy rate for services operating in locations within the next bottom 20% of SLAs as identified using the SEIFA (SEIFA 3 and 4 areas).
For long day care services this is a per child loading of 25% (\$346.50) of the standard subsidy rate for services operating in locations within the bottom 20% of SLAs as identified using the SEIFA (SEIFA 1 and 2 areas).
This subsidy is to reduce out-of-pocket expenses for parents.

Source: Queensland Government, 2012.

Table 4.4  
*Suggestions for Improving ECEC Quality*

Participant Categories	Participant's Perceptions
Individual interview - public nursery principal	<ul style="list-style-type: none"> <li>● Raise teachers' pay</li> <li>● Decrease the staff-child ratio to 1:10 (currently 1:15)</li> <li>● Improve facilities</li> <li>● Improve teacher's quality</li> <li>● Improve children's safety</li> <li>● Government should subsidize preschools</li> </ul>
Teachers' Focus Group - public nursery	<ol style="list-style-type: none"> <li>1. Assist teachers to obtain teacher's certificates by providing more courses and practice for the certificate.</li> <li>2. Decrease the staff-child ratio</li> <li>3. Improve teacher's quality</li> <li>4. Improve teaching</li> <li>5. Improve government policy</li> </ol>
Parents' Focus Group - public nursery	<ol style="list-style-type: none"> <li>1. Improve teacher quality</li> <li>2. Improve communication between parents and teachers</li> <li>3. Decrease the turnover rate of preschool teachers</li> </ol>
Individual interview - privatized public nursery principal	<ol style="list-style-type: none"> <li>1. If the government subsidizes preschools, their ECEC quality can be enhanced.</li> <li>2. Teachers should have passion.</li> <li>3. Whether children receive good care is the most important factor in preschool quality.</li> </ol>
Teachers' Focus Group - privatized public nursery	<ol style="list-style-type: none"> <li>1. Raise teachers' pay to increase teacher quality</li> <li>2. Decrease high teacher turnover</li> <li>3. Decrease the staff ratio to 1:10 (currently 1:15)</li> </ol>
Parents' Focus Group - privatized public nursery	<ol style="list-style-type: none"> <li>1. Provide children with a healthy, safe and happy environment.</li> <li>2. Improve principals' leadership</li> <li>3. Improve teacher quality</li> <li>4. Improve communication between parents and teachers</li> </ol>
Individual interview - private kindergarten principal	<ol style="list-style-type: none"> <li>1. Have good government policy</li> <li>2. Raise teachers' pay</li> <li>3. Improve the working environment</li> <li>4. Improve teachers' competence</li> </ol>

Teachers' Focus Group - private kindergarten	<ol style="list-style-type: none"> <li>1. Parents need to be educated to have right ECEC concepts.</li> <li>2. Principals should discuss issues concerning their preschools with the teachers.</li> <li>3. Principals should be passionate about educating and caring for children.</li> </ol>
Parents' Focus Group - private kindergarten	<ol style="list-style-type: none"> <li>1. Teachers should have a teacher's certificate.</li> <li>2. Teachers should attend in-service training.</li> <li>3. Staff-child ratios should be lowered to 1:10</li> <li>4. Teacher turnover should not be too high.</li> </ol>
Individual interview - evaluator A	<ol style="list-style-type: none"> <li>1. Evaluations and the methods to improve quality after evaluations are important.</li> <li>2. Evaluations should focus on what actually occurs inside the preschool, not just on checking paper work.</li> <li>3. The government should punish those preschools which do not follow regulations concerning staff-child ratios, overtime, and insurance for teachers.</li> <li>4. The government should set up more public nurseries or privatized public nurseries, so it can require in these preschools proper teacher qualifications, pay standards, and staff-child ratios.</li> </ol>
Individual interview - evaluator B	<ol style="list-style-type: none"> <li>1. The government should subsidize teachers to decrease their turnover rate.</li> <li>2. Evaluations should be performed not only on preschools but also on nannies. They should focus on what really happens in preschools, not just on checking paperwork.</li> <li>3. Evaluation teams could include experienced preschool teachers.</li> <li>4. It is better to set up more ECEC places than to subsidize children in remote areas.</li> <li>5. ECEC for those aged under two should be taken care of by local authorities; those aged over two can be taken care of by the MOE.</li> </ol>
Individual interview - evaluator C	<ol style="list-style-type: none"> <li>1. There should be two teachers to manage one class.</li> <li>2. Teachers should have the ability to communicate with parents.</li> <li>3. Teachers' working hours should be normal</li> <li>4. Decrease high turnover of teachers</li> <li>5. Educate principal's management values</li> </ol>
Individual interview - government official	<ol style="list-style-type: none"> <li>1. Enhance ECEC quality through government subsidies for preschools.</li> <li>2. Improve pay and benefits</li> <li>3. Decrease the turnover rate of preschool teachers.</li> </ol>

Table 4.5

*Perceptions of Key Factors Influencing Career Opportunities by 13 Participant Categories According to Frequency in the Interviews*

Participant Categories	Key factors	Frequency	Interview time
Individual interview – PN principal	1. Pay & benefits	29	1h 30m
	2. Professional learning opportunities	26	
	3. Working environment	9	
	4. Principals' leadership	5	
Teachers' Focus Group – PN	1. Pay & benefits	14	1h 30m
	2. Professional learning opportunities	13	
	3. Parent-teacher communication	6	
	4. Working environment	4	
	5. Principals' leadership	2	
Parents' Focus Group – PN	1. Pay & benefits	26	1h 30m
	2. Working environment	13	
	3. Parent-teacher communication	5	
	4. Principals' leadership	1	
Individual interview – PPN principal	1. Professional learning opportunities	9	1h 30m
	2. Pay & benefits	5	
	3. Working environment	1	
	4. Parent-teacher communication	1	
Teachers' Focus Group – PPN	1. Pay & benefits	14	1h 30m
	2. Working environment	4	
	3. Professional learning opportunities	3	
	4. Parent-teacher communication	2	

	5. Principals' leadership	1	
Parents' Focus Group – PPN	1. Parent-teacher communication	7	1h 30m
	2. Pay & benefits	4	
	3. Principals' leadership	2	
Individual interview – PK principal	1. Pay & benefits	20	2h
	2. Working environment	18	
	3. Parent-teacher communication	9	
	4. Professional learning opportunities	6	
	5. Principals' leadership	5	
Teachers' Focus Group – PK	1. Pay & benefits	14	2h
	2. Principals' leadership	12	
	3. Professional learning opportunities	7	
	4. Working environment	3	
	5. Parent-teacher communication	2	
Parents' Focus Group – PK	1. Pay & benefits	27	1h 30m
	2. Working environment	8	
	3. Parent-teacher communication	4	
	4. Professional learning opportunities	2	
	5. Principals' leadership	1	
Individual interview – evaluator A	1. Pay & benefits	17	1h
	2. Professional learning opportunities	15	
	3. Working environment	4	
Individual interview –	1. Pay & benefits	7	1h

evaluator B	2. Working environment	7	
Individual interview – evaluator C	1. Pay & benefits	8	1h
	2. Professional learning opportunities	6	
	3. Working environment	4	
	4. Principals' leadership	2	
	5. Parent-teacher communication	1	
Individual interview – GO	1. Pay & benefits	16	1h 30m
	2. Professional learning opportunities	14	
	3. Working environment	1	
	4. Parent-teacher communication	1	

Table 4.6

*Number of Participant Groups Mentioning Key Factors in Career Opportunities*

Key factors	Number of preschool-based participant groups	Number of non-preschool-based participant groups (Evaluators and GO)	Number of participant groups in total
1. Pay & benefits	9	4	13
2. Working environment	8	4	12
3. Professional learning	7	3	10
4. Parent-teacher communication	8	2	10
5. Principals' leadership	8	1	9



Table 4.7

*Suggestions for Improving Career Opportunities for ECEC Staff*

Participant Categories	Participant's 'suggestions
Individual interview – PN principal	<ol style="list-style-type: none"> <li>1. Pay raises</li> <li>2. Good working environment</li> <li>3. The opportunity to develop ability with continuing education</li> <li>4. Preschool teachers might organize a trade union to negotiate a pay standard.</li> <li>5. Setting up a pay level system</li> <li>6. Teachers who have a certificate can have more job opportunities.</li> </ol>
Teachers' Focus Group – PN	<ol style="list-style-type: none"> <li>1. Pay raises</li> <li>2. Increases in benefits such as overtime allowance</li> <li>3. Leave for teachers</li> <li>4. Good working environment</li> <li>5. Good leadership by principals</li> <li>6. Good relationships with colleagues</li> </ol>
Parents' Focus Group – PN	<ol style="list-style-type: none"> <li>1. Pay raises and increases in benefits</li> <li>2. Trying to decrease teacher turnover rates</li> <li>3. Government might subsidize teachers</li> <li>4. Providing teachers an ECEC place for their own children</li> <li>5. Good leadership by principals</li> <li>6. Good working environment</li> </ol>
Individual interview – PPN principal	<ol style="list-style-type: none"> <li>1. Teachers have to keep on making improvements</li> <li>2. Teachers should develop the ability to cope with stress.</li> </ol>
Teachers' Focus Group – PPN	<ol style="list-style-type: none"> <li>1. Society sets a low value on preschool teacher's work.</li> <li>2. Pay raises and increase in benefits.</li> <li>3. Most people consider a teacher's certificate shows a teacher's competence, which can make stress for teachers without a teacher's certificate.</li> </ol>
Parents' Focus Group – PPN	<ol style="list-style-type: none"> <li>1. Improving principals' leadership</li> <li>2. Pay raises and increase in benefits.</li> <li>3. The government might subsidize teachers.</li> </ol>
Individual interview – PK principal	<ol style="list-style-type: none"> <li>1. Pay raises</li> <li>2. Improvements to the working environment</li> <li>3. Increasing the communication between parents and young teachers to enable parents to trust them</li> <li>4. Improving teacher's passion and attitude</li> </ol>
Teachers' Focus Group – PK	<ol style="list-style-type: none"> <li>1. Improving principals' leadership</li> <li>3. Pay raises and increase in benefits</li> <li>4. Improving society's view of preschool teachers' work</li> <li>5. Improving teachers' workload</li> </ol>

Parents' Focus Group – PK	<ol style="list-style-type: none"> <li>1. Pay raises and increase in benefits.</li> <li>2. Decrease teacher turnover rate</li> <li>3. Government might subsidize teachers</li> <li>4. Provide a pay level system according to service years, in-service training and continuing education, similar to the government employee system.</li> <li>5. Support from principals and colleagues</li> <li>6. Provide a good working environment</li> </ol>
Individual interview – evaluator A	<ol style="list-style-type: none"> <li>1. Government policy should regulate the hiring of preschool teachers</li> <li>2. Increasing staff-child ratios</li> <li>3. Setting up a proper pay framework for teachers in a “Cooperation preschool” policy requires preschools to register and fulfill certain requirements in order to qualify for subsidies.</li> <li>4. Setting up more public preschools and privatized public preschools</li> </ol>
Individual interview – evaluator B	<ol style="list-style-type: none"> <li>1. Guarantees of basic pay rates</li> <li>2. Better pay level system</li> </ol>
Individual interview – evaluator C	<ol style="list-style-type: none"> <li>1. Working hours in accordance with labor standards law</li> <li>2. Pay raises</li> <li>3. Solving the problem of excessive working hours</li> <li>4. Addressing the problem of high teacher turnover</li> </ol>
Individual interview – GO	<ol style="list-style-type: none"> <li>1. Opportunities to enhance personal ability</li> <li>2. Pay raises and increases in benefits</li> <li>3. Opportunities for in-service training</li> </ol>

## Appendix A2: Figures in Chapters

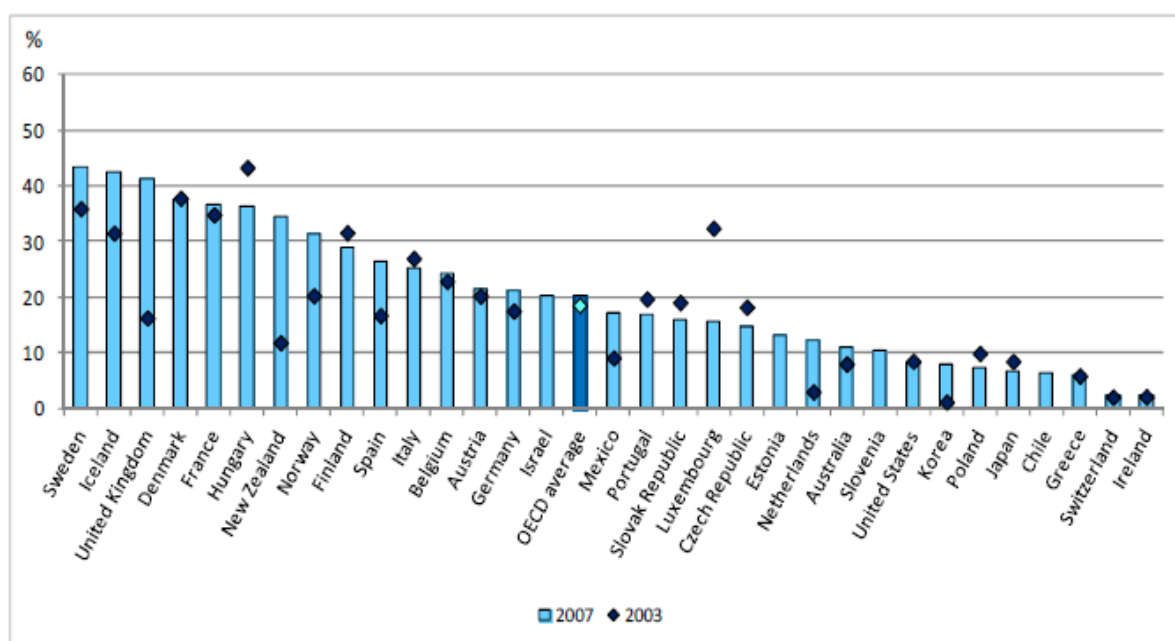


Figure 2.7. Public spending on early education and child care per child at age three, % of median working-age household income (2003 and 2007).  
Source: OECD, 2011.

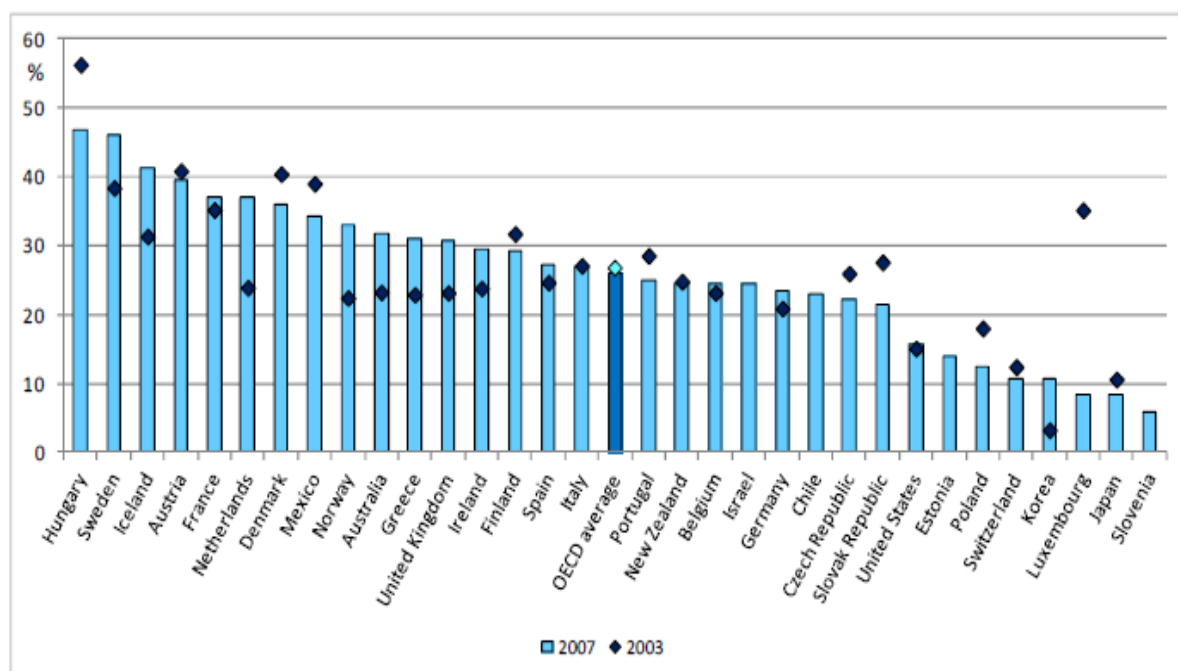
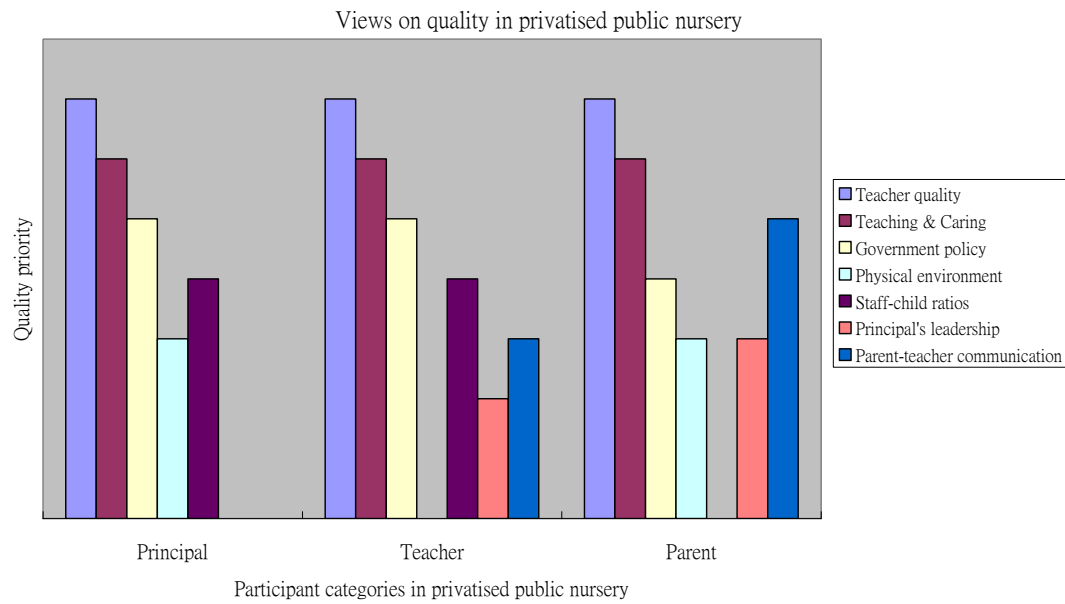
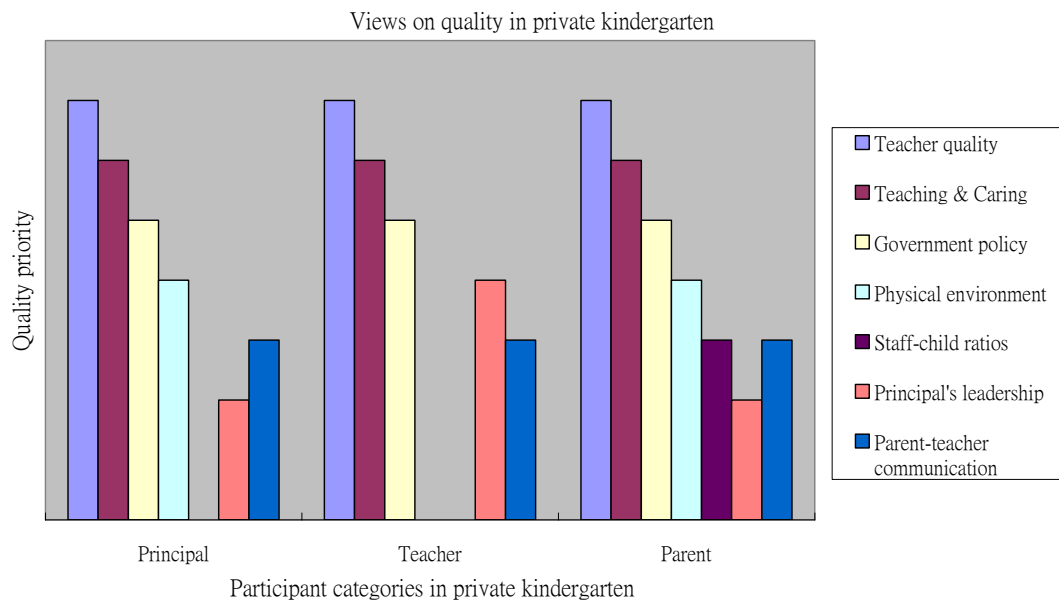


Figure 2.8. Public spending on early education and child care per child at age five, % of median working-age household income (2003 and 2007).  
Source: OECD, 2011.



*Figure 4.4.* High-priority ECEC quality factors as perceived by the participant groups in the PPN.



*Figure 4.6.* High-priority ECEC quality factors as perceived by the PK participant groups.

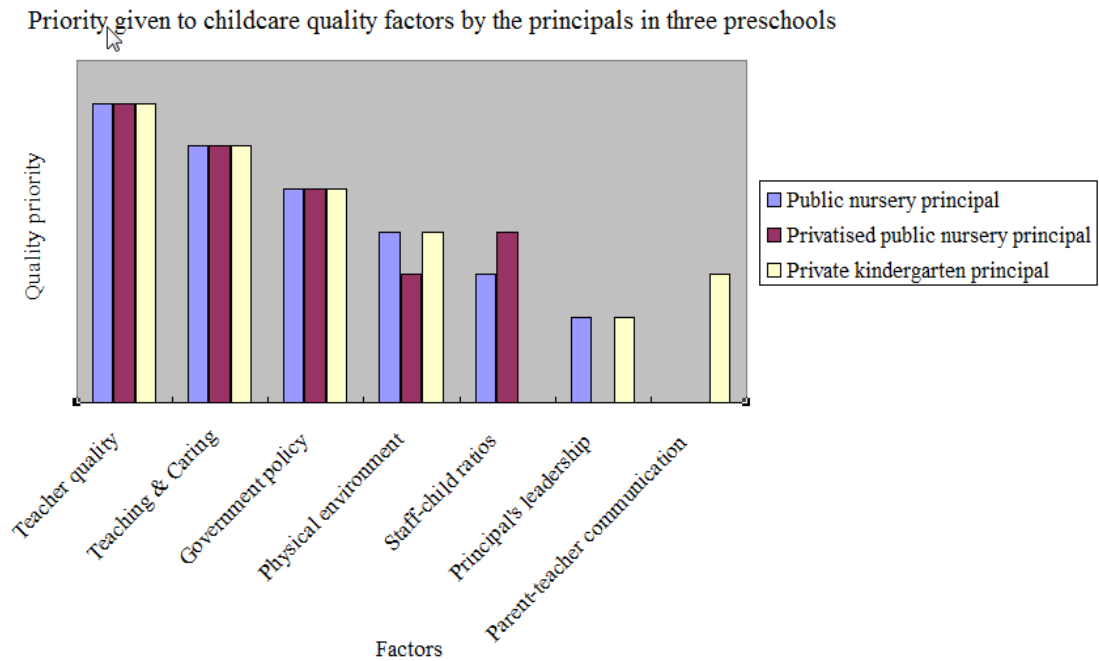


Figure 4.8. Priority given to ECEC quality factors by the principals in three preschools.

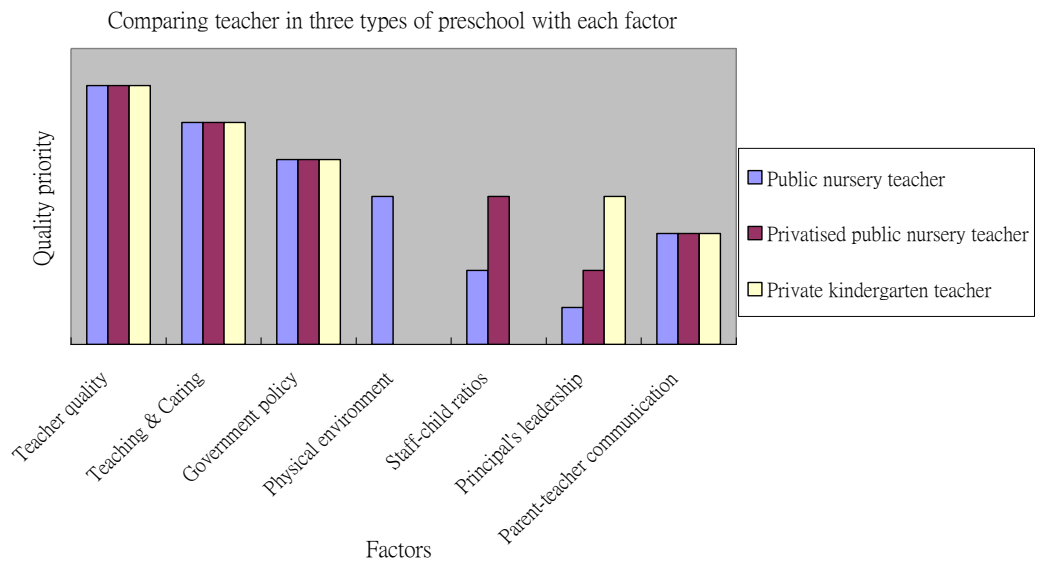


Figure 4.10. Priority given to ECEC quality factors by the teacher groups in the three preschools.

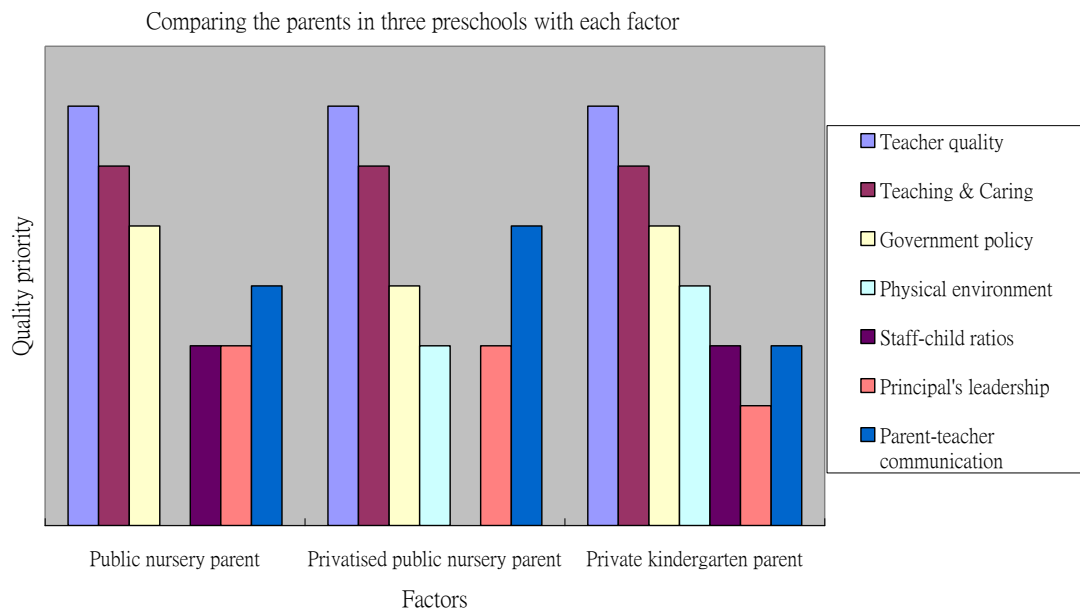


Figure 4.12. High-priority ECEC quality factors as perceived by the parent groups in the three preschools.

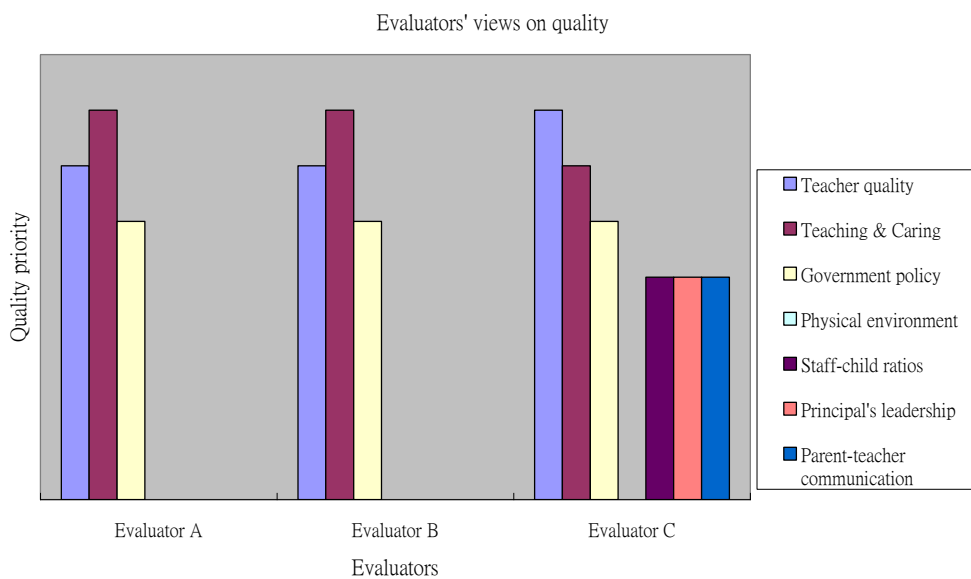
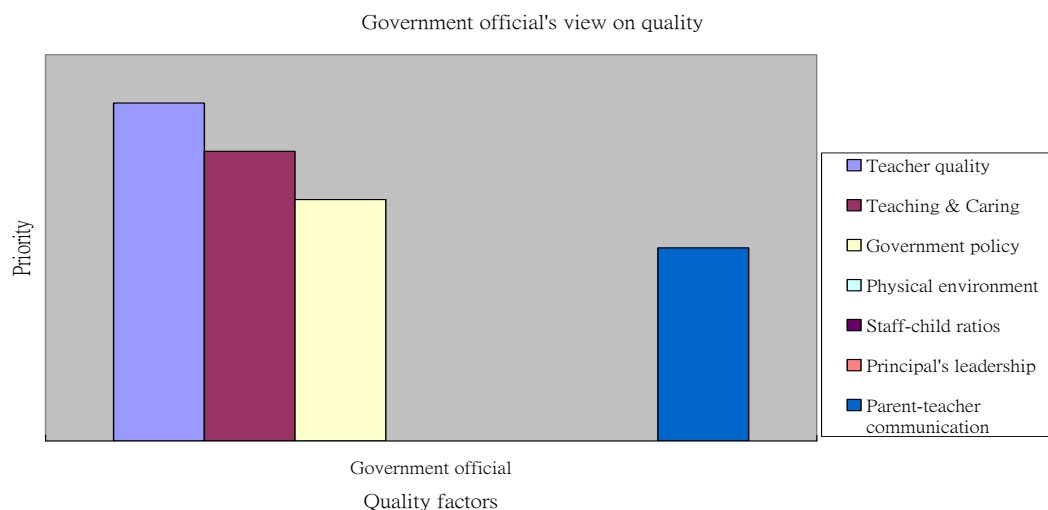
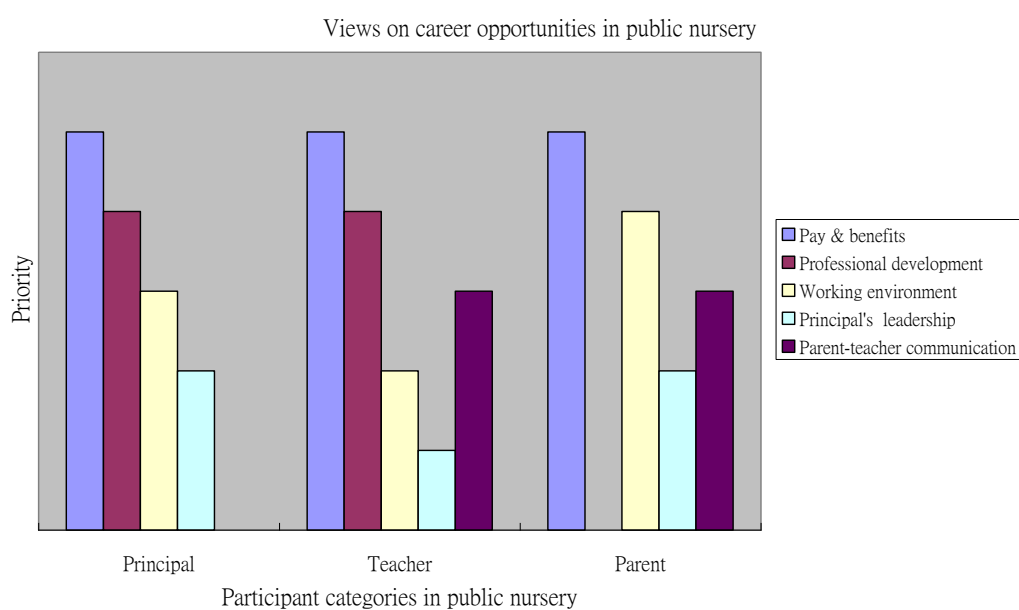


Figure 4.14. Priorities of ECEC quality factors as perceived by evaluators.



*Figure 4.16.* High-priority ECEC quality factors as perceived by the GO.



*Figure 4.18.* High-priority career opportunities factors as perceived by the PN participant groups.

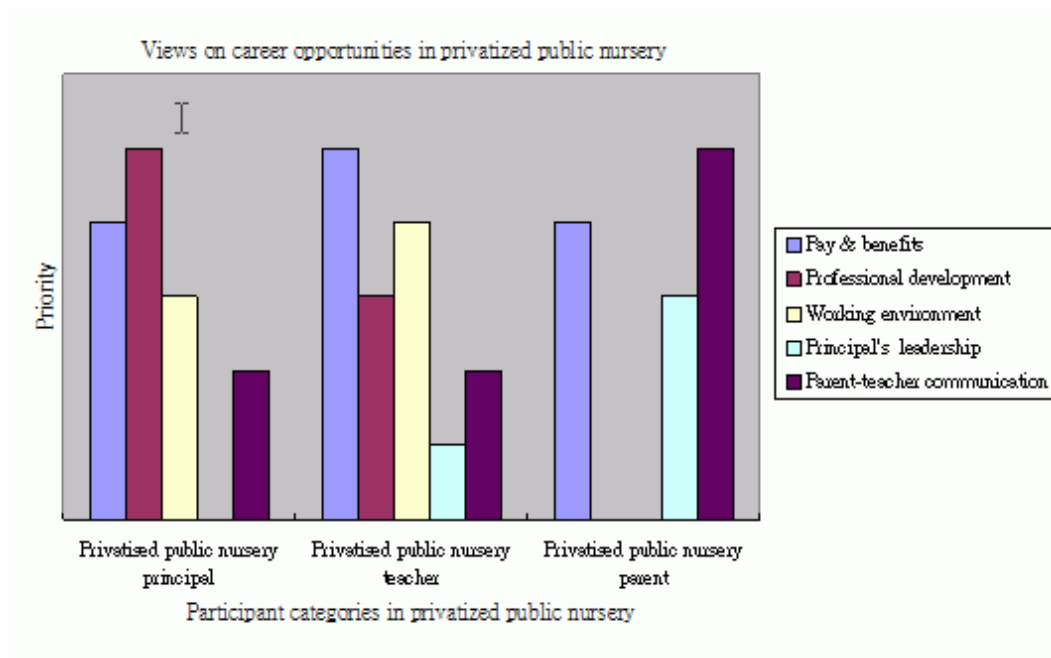


Figure 4.20. High-priority career opportunities factors as perceived by PPN participant groups.

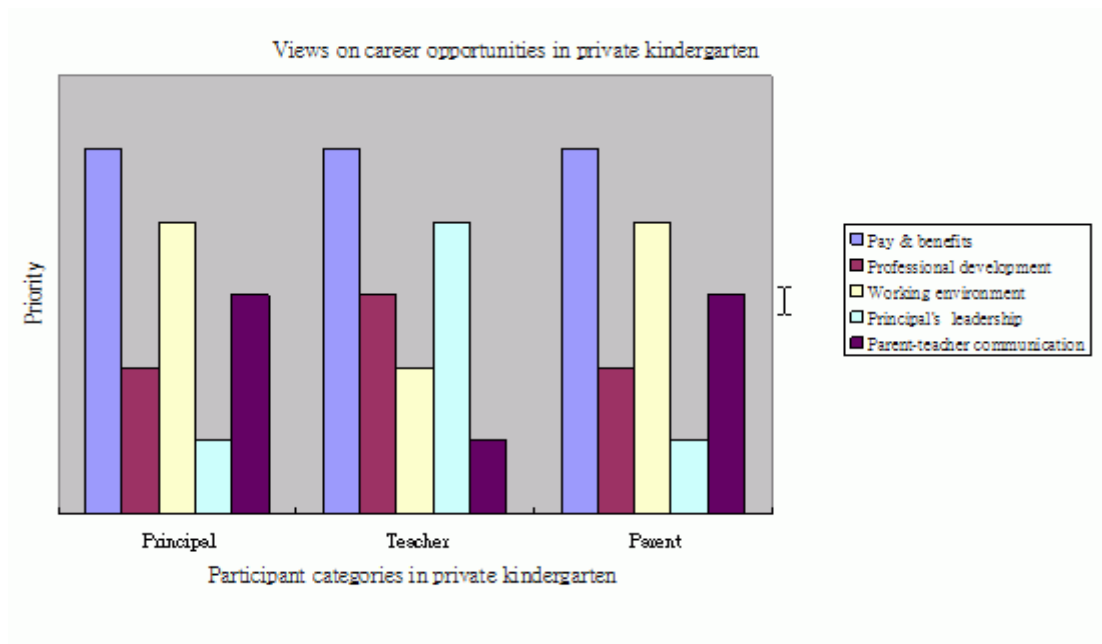


Figure 4.22. High-priority career opportunities factors as perceived by the PK participant groups.



Comparing each factor of career opportunities with the principals in preschools

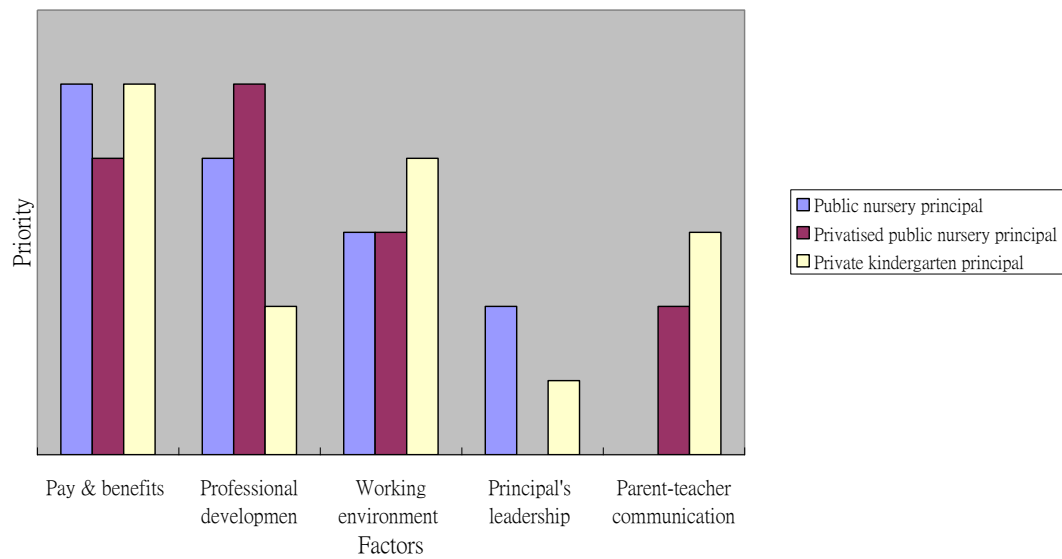


Figure 4.24. Priority given to career opportunities factors by the principals in three preschools.

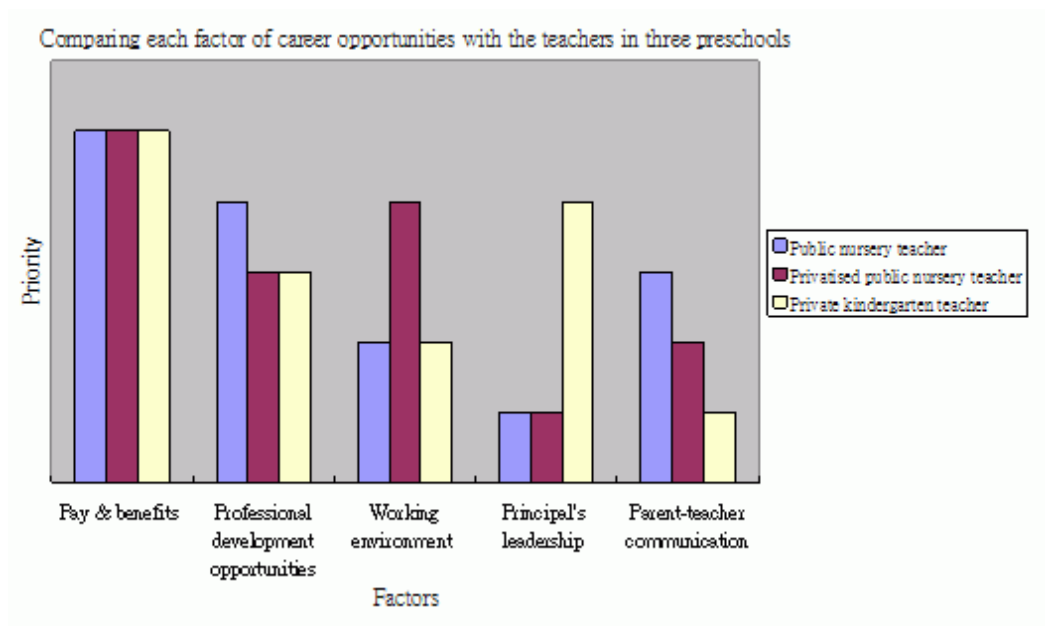
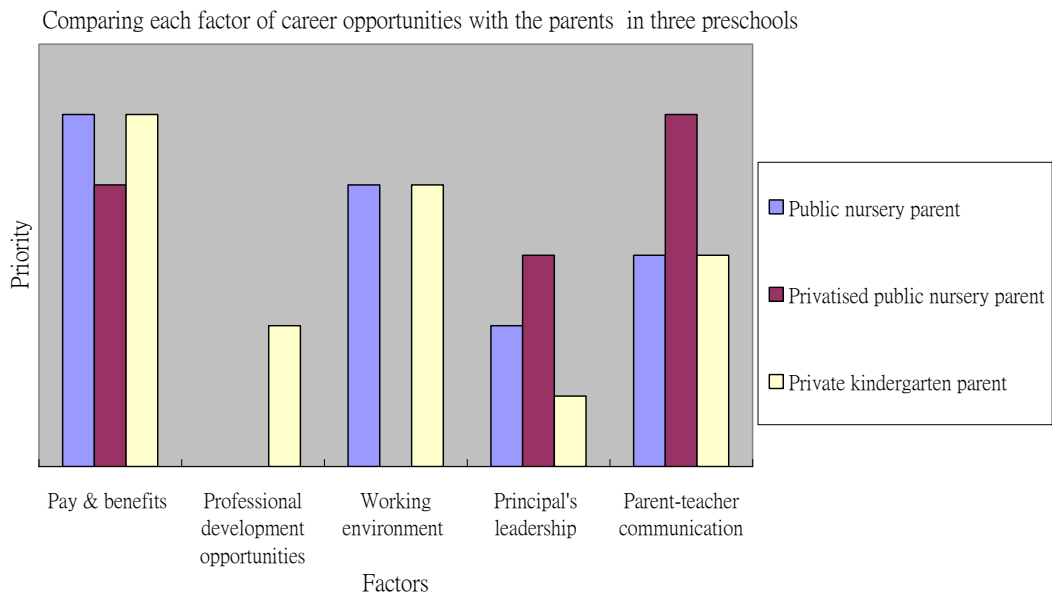
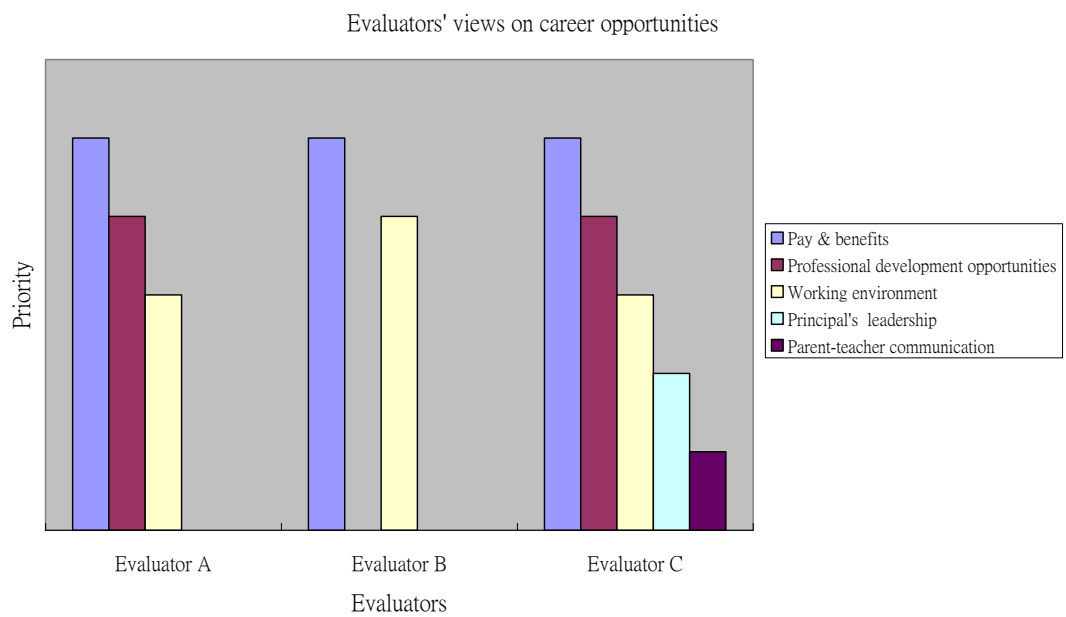


Figure 4.26. Priority given to career opportunities factors by the teacher groups in three preschools.



*Figure 4.28.* Priority given to career opportunities factors by the parent groups in three preschools.



*Figure 4.30.* High-priority career opportunities factors as perceived by evaluators.

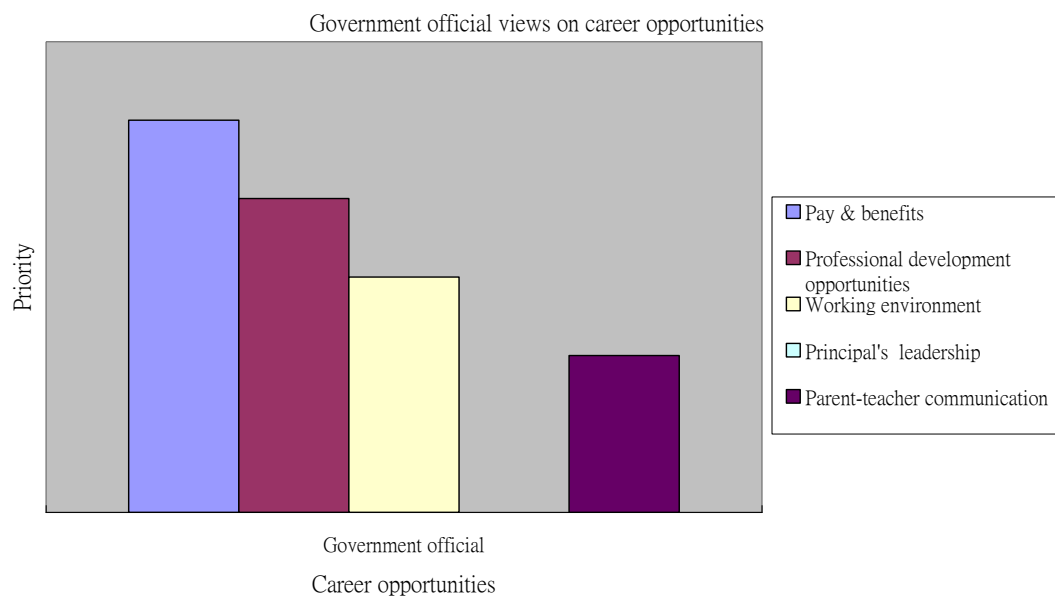



Figure 4.32. High-priority career opportunities factors as perceived by the GO.

# Appendix B1

## CQU Human Research Ethics Committee Approval



Secretary, Human Research Ethics Committee  
Ph: 07 4923 2603  
Fax: 07 4923 2600  
Email: [ethics@cqu.edu.au](mailto:ethics@cqu.edu.au)

5 September 2011

Ms Hsui-Yueh Chiu  
No 16, Ln 18, Sec 1  
Xiangshun E Rd., Beitun Dist  
Taichung City Taiwan 406  
Republic of China

Dear Ms Chiu

**HUMAN RESEARCH ETHICS COMMITTEE APPROVAL: PROJECT H11/07-119, EXPLORING LIMITATIONS IN CHILDCARE QUALITY AND CAREER OPPORTUNITIES IN THE PRESCHOOL PROFESSION IN TAIWAN**

The Human Research Ethics Committee is an approved institutional ethics committee constituted in accord with guidelines formulated by the National Health and Medical Research Council (NHMRC) and governed by policies and procedures consistent with principles as contained in publications such as the joint Universities Australia and NHMRC *Australian Code for the Responsible Conduct of Research*. This is available at [http://www.nhmrc.gov.au/publications/synopses/\\_files/r39.pdf](http://www.nhmrc.gov.au/publications/synopses/_files/r39.pdf).

On 26 July 2011, the committee met and considered your application. The project was assessed as being greater than low risk, as defined in the National Statement. On 26 August 2011, the committee acknowledged compliance with the conditions placed upon ethical approval for your research *Exploring limitations in childcare quality and career opportunities in the preschool profession in Taiwan* (Project Number H11/07-119).

The period of ethics approval will be from 26 August 2011 to 1 September 2012. The approval number is H11/07-119; please quote this number in all dealings with the Committee. HREC wishes you well with the undertaking of the project and looks forward to receiving the final report and statement of findings.

The standard conditions of approval for this research project are that:

- (a) you conduct the research project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments required to be made to the proposal by the Human Research Ethics Committee;
- (b) you advise the Human Research Ethics Committee (email [ethics@cqu.edu.au](mailto:ethics@cqu.edu.au)) immediately if any complaints are made, or expressions of concern are raised, or any other issue in relation to the project which may warrant review of ethics approval of the project. (A written report detailing the adverse occurrence or unforeseen event must be submitted to the Committee Chair within one working day after the event.)
- (c) you make submission to the Human Research Ethics Committee for approval of any proposed variations or modifications to the approved project before making any such changes;

Central Queensland University CRICOS Provider Codes: QLD - 00219C, NSW - 01315F, VIC - 01624D

- (d) you provide the Human Research Ethics Committee with a written "Annual Report" on each anniversary date of approval (for projects of greater than 12 months) and "Final Report" by no later than one (1) month after the approval expiry date, or upon submission of your thesis (Psychology honours students only); *(A copy of the reporting pro formas may be obtained from the Human Research Ethics Committee Secretary, Sue Evans please contact at the telephone or email given on the first page.)*
- (e) you accept that the Human Research Ethics Committee reserves the right to conduct scheduled or random inspections to confirm that the project is being conducted in accordance to its approval. Inspections may include asking questions of the research team, inspecting all consent documents and records and being guided through any physical experiments associated with the project
- (f) if the research project is discontinued, you advise the Committee in writing within five (5) working days of the discontinuation;
- (g) A copy of the Statement of Findings is provided to the Human Research Ethics Committee when it is forwarded to participants.

Please note that failure to comply with the conditions of approval and the *National Statement on Ethical Conduct in Human Research* may result in withdrawal of approval for the project.

In the event that you require an extension of ethics approval for this project, please make written application in advance of the end-date of this approval. The research cannot continue beyond the end date of approval unless the Committee has granted an extension of ethics approval. Extensions of approval cannot be granted retrospectively. Should you need an extension but not apply for this before the end-date of the approval then a full new application for approval must be submitted to the Secretary for the Committee to consider.

The Human Research Ethics Committee is committed to supporting researchers in achieving positive research outcomes through sound ethical research projects. If you have issues where the Human Research Ethics Committee may be of assistance or have any queries in relation to this approval please do not hesitate to contact the Ethics and Compliance Officer or myself.

Yours sincerely,

Dr Tania Signal  
Acting Chair, Human Research Ethics Committee

Cc: Dr Alison Owens (Supervisor)  
Project file

Application Category: A

## Appendix B2

### Information Sheet for Principals

BE WHAT YOU WANT TO BE

**CQUniversity**



CQUniversity Sydney  
400 Kent Street  
Sydney NSW 2000  
AUSTRALIA

#### Information Sheet

Date 13072011

Dear Principals

I am delighted to invite you to participate in an interview as part of the research conducted towards my Doctor of Professional Studies at CQUniversity entitled: Exploring childcare quality and career opportunities in the preschool profession in Taiwan.

This research aims to assess factors affecting childcare quality and identify strategies for improving career opportunities in childcare from the perspective of key stakeholders including teachers, parents, principals, evaluators and government officer.

Principals are asked to attend an individual interview to discuss their views on quality issues and career options in childcare. The interview will take place at the workplace during August and will last for up to one hour. Interviews will be audio-taped for transcription and translation into English for reporting. Comments made by individuals in these interviews will be de-identified in reporting so that individuals cannot be identified or associated with specific comments. Participation or non participation will not affect employment.

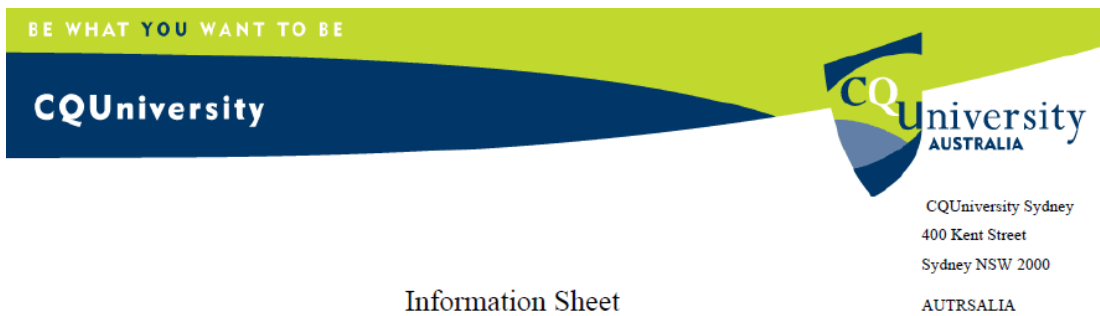
Participation in this research is voluntary and participants may withdraw from the project at any time without providing a reason and with no penalty. Questions or concerns related to this research may be reported to the CQUniversity Office of Research (TEL: +61 749 23 2607 or e-mail: [research-enquiries@cqu.edu.au](mailto:research-enquiries@cqu.edu.au)).

Yours sincerely,

Researcher  
Hsiu-yueh.Chiu

Mobile phone: 0912120626  
Email: [hsiu-yueh.chiu@cquemail.com](mailto:hsiu-yueh.chiu@cquemail.com)

## Information Sheet for Teachers



### Information Sheet

Date 13072011

Dear Teachers

I am delighted to invite you to participate in an interview as part of the research conducted towards my Doctor of Professional Studies at CQUniversity entitled: Exploring childcare quality and career opportunities in the preschool profession in Taiwan.

This research aims to assess factors affecting childcare quality and identify strategies for improving career opportunities in childcare from the perspective of key stakeholders including teachers, parents, administrators, evaluators and government officer.

Teachers are asked to attend an individual interview to discuss their views on quality issues and career options in childcare. The interview will take place at the workplace during August and will last for up to one hour. Interviews will be audio-taped for transcription and translation into English for reporting. Comments made by individuals in these interviews will be de-identified in reporting so that individuals cannot be identified or associated with specific comments. Participation or non participation will not affect employment.

Participation in this research is voluntary and participants may withdraw from the project at any time without providing a reason and with no penalty. Questions or concerns related to this research may be reported to the CQUniversity Office of Research (TEL: +61 749 23 2607 or e-mail: [research-enquiries@cqu.edu.au](mailto:research-enquiries@cqu.edu.au)).

Yours sincerely,

Researcher

Hsiu-yueh.Chiu

Mobile phone: 0912120626

Email: [hsiu-yueh.chiu@cquemail.com](mailto:hsiu-yueh.chiu@cquemail.com)

## Information Sheet for Parents

BE WHAT YOU WANT TO BE

**CQUniversity**



CQUniversity Sydney  
400 Kent Street  
Sydney NSW 2000  
AUSTRALIA

### Information Sheet

Date 13072011

Dear Parents

I am delighted to invite you to participate in an interview as part of the research conducted towards my Doctor of Professional Studies at CQUniversity entitled: Exploring childcare quality and career opportunities in the preschool profession in Taiwan.

This research aims to assess factors affecting childcare quality and identify strategies for improving career opportunities in childcare from the perspective of key stakeholders including teachers, parents, administrators, evaluators and government officer.

Parents are asked to attend an individual interview to discuss their views on quality issues and career options in childcare. The interview will take place at the workplace during August and will last for up to one hour. Interviews will be audio-taped for transcription and translation into English for reporting. Comments made by individuals in these interviews will be de-identified in reporting so that individuals cannot be identified or associated with specific comments. Participation or non participation will not affect employment.

Participation in this research is voluntary and participants may withdraw from the project at any time without providing a reason and with no penalty. Questions or concerns related to this research may be reported to the CQUniversity Office of Research (TEL: +61 749 23 2607 or e-mail: [research-enquiries@cqu.edu.au](mailto:research-enquiries@cqu.edu.au)).

Yours sincerely,

Researcher  
Hsiu-yueh.Chiu

Mobile phone: 0912120626  
Email: [hsiu-yueh.chiu@cquemail.com](mailto:hsiu-yueh.chiu@cquemail.com)



## Information Sheet for Evaluators

BE WHAT YOU WANT TO BE

**CQUniversity**



CQUniversity Sydney  
400 Kent Street  
Sydney NSW 2000  
AUSTRALIA

### Information Sheet

Date 13072011

Dear Evaluators

I am delighted to invite you to participate in an interview as part of the research conducted towards my Doctor of Professional Studies at CQUniversity entitled: Exploring childcare quality and career opportunities in the preschool profession in Taiwan.

This research aims to assess factors affecting childcare quality and identify strategies for improving career opportunities in childcare from the perspective of key stakeholders including teachers, parents, administrators, evaluators and government officer.

Evaluators are asked to attend an individual interview to discuss their views on quality issues and career options in childcare. The interview will take place at the workplace during August and will last for up to one hour. Interviews will be audio-taped for transcription and translation into English for reporting. Comments made by individuals in these interviews will be de-identified in reporting so that individuals cannot be identified or associated with specific comments. Participation or non participation will not affect employment.

Participation in this research is voluntary and participants may withdraw from the project at any time without providing a reason and with no penalty. Questions or concerns related to this research may be reported to the CQUniversity Office of Research (TEL: +61 749 23 2607 or e-mail: [research-enquiries@cqu.edu.au](mailto:research-enquiries@cqu.edu.au)).

Yours sincerely,

Researcher  
Hsiu-yueh.Chiu

Mobile phone: 0912120626  
Email: [hsiu-yueh.chiu@cquemail.com](mailto:hsiu-yueh.chiu@cquemail.com)


## Information Sheet for Government Official

BE WHAT YOU WANT TO BE	
<b>CQUniversity</b>	 CQUniversity Sydney 400 Kent Street Sydney NSW 2000 AUSTRALIA
<h3>Information Sheet</h3>	
Date 13072011	
Dear Government Officer	
<p>I am delighted to invite you to participate in an interview as part of the research conducted towards my Doctor of Professional Studies at CQUniversity entitled: Exploring childcare quality and career opportunities in the preschool profession in Taiwan.</p>	
<p>This research aims to assess factors affecting childcare quality and identify strategies for improving career opportunities in childcare from the perspective of key stakeholders including teachers, parents, administrators, evaluators and government officer.</p>	
<p>Government Officer is asked to attend an individual interview to discuss their views on quality issues and career options in childcare. The interview will take place at the workplace during August and will last for up to one hour. Interviews will be audio-taped for transcription and translation into English for reporting. Comments made by individuals in these interviews will be de-identified in reporting so that individuals cannot be identified or associated with specific comments. Participation or non participation will not affect employment.</p>	
<p>Participation in this research is voluntary and participants may withdraw from the project at any time without providing a reason and with no penalty. Questions or concerns related to this research may be reported to the CQUniversity Office of Research (TEL: +61 749 23 2607 or e-mail: <a href="mailto:research-enquiries@cqu.edu.au">research-enquiries@cqu.edu.au</a>).</p>	
Yours sincerely,	
Researcher Hsiu-yueh.Chiu	
Mobile phone: 0912120626 Email: <a href="mailto:hsiu-yueh.chiu@cquemail.com">hsiu-yueh.chiu@cquemail.com</a>	

## Consent Form for All Participants

BE WHAT YOU WANT TO BE

**CQUniversity**



CQUniversity Sydney  
400 Kent Street  
Sydney NSW 2000  
AUSTRALIA

**CONSENT FORM**

I \_\_\_\_\_, hereby consent to participate in the research project entitled 'Exploring limitations in childcare quality and career opportunities in the preschool profession in Taiwan' conducted by Ms Hsiu-Yueh Chiu.

- I confirm that I have read and understand the information sheet for the above research project.
- I confirm that I have had the opportunity to ask questions and have had these answered to my satisfaction.
- I understand that my participation is voluntary and that I am free to withdraw at any time without penalty.
- I understand that I am free to decline to answer any question for any reason.
- I understand the research findings will be included in the researcher's publication(s).
- I understand that my responses will be audio-taped and that the data will be coded and stored for 5 years.
- I agree to take part in the above research project.

I understand that, if I have any questions or concerns about this project, I can contact the CQUniversity Office of Research (TEL: +61 749 23 2607 or e-mail: [research-enquiries@cqu.edu.au](mailto:research-enquiries@cqu.edu.au)).

Signature \_\_\_\_\_ Date \_\_\_\_\_

Name (print) \_\_\_\_\_

Signature of Researcher \_\_\_\_\_ Date \_\_\_\_\_