

The Pennsylvania State University

The Graduate School

College of Education

**AN INVESTIGATION INTO THE PERCEPTIONS OF NURSERY SCHOOL  
DIRECTORS AND TEACHERS TOWARDS USE OF AN ASSESSMENT  
INSTRUMENT IN EARLY CHILDHOOD EDUCATION/CARE EVALUATIONS  
OF NURSERY SCHOOL QUALITY  
IN TAIWAN**

A Thesis in

Curriculum and Instruction

by

Wen-ling Chen

© 2006 Wen-ling Chen

Submitted in Partial Fulfillment  
of the Requirements  
for the Degree of

Doctor of Philosophy

May 2006

The thesis of Wen-ling Chen was reviewed and approved\* by the following:

Thomas D. Yawkey  
Professor of Curriculum and Instruction  
Thesis Advisor  
Chair of Committee

Jamie M. Myers  
Associate Professor of Curriculum and Instruction

Roger C. Shouse  
Associate Professor of Education Policy Studies

Edgar P. Yoder  
Professor of Agricultural and Extension Education

Patrick W. Shannon  
Professor of Education  
Coordinator for Graduate Programs in Curriculum and Instruction

\*Signatures are on file in the Graduate School

## ABSTRACT

This study examines perceptions of directors and teachers regarding nursery school assessment instrument application, and the interrelationships of government, directors, teachers, parents, and children to an open systems model. The study's survey includes participants, 39 directors and 39 teachers, who have experience in being assessed by the 2002 Kaohsiung City Nursery School Assessment initiative, have at least four-year's teaching experience. All participants completed a nursery school assessment instrument survey which contained 106 questions related to critical issues of early childhood education.

A gap exists between the bases of "formally important," which is the governmental evaluation standard for nursery schools and "informally important" which is what directors and teachers actually think about their schools' situations regarding a nursery school assessment instrument. More nursery schools utilized packaged instructional materials a main part of curricula, and applied self-designed activities as a minor part of curricula. The teaching of Chinese phonetic signs (97.4% of schools) and writing (88.5% of schools) was widely adopted in the respondents' schools. Eight-six percent of participants did not agree with prohibiting talent lessons in nursery schools. An open systems model explains that nursery schools' directors and teachers understand the external demands that influence schools' operation. These governmental requirements result in personal views which contrast with the formal criteria.

Directors' and teachers' teaching experience significantly and positively affected confidence in professional capability. Curriculum adoption and documentation

confidence has a significantly relationship to the school size. The school size also has effects on directors' and teachers' confidence with regard to the nursery school assessment instrument, as well as on the outcome of the 2002 Kaohsiung City Nursery School Assessment. The scores of nursery schools assessments could depend greatly on the completion of documentation which is directly related to the school size.

In addition to the better known nursery school assessment, the survey is an important predictor of feasible assessment instruments. The data recommends that government officials, professional authorities and practitioners should encourage teaching of Chinese phonetic signs, writing, talent lessons, and packaged instructional materials; emphasis in evaluation should be on process quality instead of passively excluding these activities. Moreover, program evaluation should focus on observation of real situations and process quality than mostly examining documentation.

Further studies might conduct a longitudinal study on learning of Chinese phonetic signs, writing, and talent lessons between nursery schools and elementary schools to investigate whether they have a longitudinal effect on children's academic development. Furthermore, additional research should employ efficient training of assessing members and decreasing the relevance gap, if any, among assessing members, directors, and teachers.

## TABLE OF CONTENTS

LIST OF FIGURES .....	ix
LIST OF TABLES .....	x
ACKNOWLEDGEMENTS .....	xiv
Chapter 1 BACKGROUND OF THE PROBLEM.....	1
Statement of the Problem.....	3
Purpose of Study and Research Questions .....	7
Significance of the Study .....	9
Chapter 2 REVIEW OF THE LITERATURE.....	13
The Significance of Early Childhood Education/Care Assessment .....	13
High-Quality Early Childhood Programs .....	17
High-Quality Curriculum .....	19
The Interaction among the High-Quality Features .....	20
Influences on Variations of High-Quality Early Childhood Programs .....	21
The Perspective of Researchers and Professionals in the Field .....	21
The Perspective of Parents and Children .....	22
The Perspective of Childcare Staff.....	23
Interpreting the Phenomena of Three Systems That Influence Nursery	
Schools .....	24
Rational Systems Model.....	24
Natural Systems Model .....	26
Open Systems Model.....	28
High-Quality Early Childhood Program Assessment Instruments.....	30
Kaohsiung City (KC) Assessment Instrument .....	32
National Association for the Education of Young Children (NAEYC)	
Assessment Instrument.....	33
Early Childhood Environment Rating Scale (ECERS) .....	34
An Investigation into Three Assessment Instruments .....	35
A Comparison of Items on Three Assessment Instruments within	
ECE/Care.....	37
Definite Description .....	37
Exclusive Items .....	38
Professional Development in Early Childhood Education/Care .....	39
Curriculum/Activities.....	40
Documenting Early Childhood Education/Care Regularly .....	41
Feasible Family Services.....	42
Early Childhood Education/Care Theories.....	44

Cognitive Development.....	45
Play Theory .....	48
Social Interactions .....	49
Early Childhood Education/Care Approaches in Taiwan.....	51
Thematic-Unit Approach.....	52
Learning Centers Approach.....	54
Montessori Approach .....	56
High/Scope Approach .....	60
Project Approach.....	62
The Respective Advantages of the Approaches to the Kaohsiung City	
Assessment Instrument .....	65
Kaohsiung City (KC) Assessment Instrument within Early Childhood	
Education/Care .....	65
Environmental Plan and Safe Management .....	66
Caregivers' Professional Capability and Serving Quality.....	67
Activities' Design and Operating Early Childhood Education/Care.....	68
Young Children's Learning and Counseling.....	69
Life Education and Care .....	70
Family and Community Service .....	71
Summary.....	71
Chapter 3 METHODOLOGY .....	74
Population and Sample .....	74
Design of the Study .....	76
Instrumentation .....	77
Development.....	77
Validity .....	79
Data Collection Procedures .....	80
Data Analysis.....	81
Chapter 4 RESULTS.....	83
Demographic Description of the Participants.....	85
Mandatory Assessment Criteria Analyses .....	89
Research Question 1: How do the nursery school directors and teachers	
view academic authorities' design of assessment instruments as a	
tool for developing professional early childhood education/care?.....	89
Research Question 2: How do the nursery school directors and teachers	
make decisions about developing self-designed activities and	
purchasing packaged instructional materials?.....	94
Research Question 3: What are the views of nursery school directors and	
teachers about documenting early childhood education/care	
regularly?.....	98

Research Question 4: What is the feasibility of parent education plans and family services? .....	107
Research Question 5: What are the views of nursery school directors and teachers about not teaching Chinese phonetic signs (Pin-In) and writing in nursery schools? .....	121
Convergence and Divergence .....	132
Research Question 6: What are the convergent and divergent views of nursery school directors and teachers on the existing governmental assessment instrument of early childhood education/care?.....	132
Professional Capability .....	132
Self-Designed Activities and Packaged Instructional Materials .....	140
Documentation .....	149
Family Services .....	155
Chinese Phonetic Signs & Writing.....	158
Research Question 7: To what extent do practitioners indicate disagreement with the items on the assessment instrument? .....	160
Summary of the Results .....	165
Chapter 5 DISCUSSION .....	167
Statement of the Problem.....	167
Review of the Methodology .....	168
Major Findings Related to Research Question .....	170
Professional Capability and Service Quality .....	172
Self-designed Curriculum and Packaged Instructional Materials .....	174
Documentation .....	176
Family Service.....	178
Chinese Phonetic Signs & Writing.....	180
Talent Lessons .....	181
Effects of School Size on Assessment Outcome .....	182
Models of Three Systems .....	183
Rational Systems Model.....	183
Natural Systems Model .....	186
Open Systems Model.....	189
Final Thoughts on Models of Three Systems.....	193
Relationship to Previous Research .....	194
Limitations of the Study .....	195
Implications for Professional Practices .....	196
Recommendations for Further Research .....	198
Summary of the Discussion .....	200
Bibliography .....	203
Appendix A Overview of the Subscales of Kaohsiung City Assessment Instrument, National Association for Education of Young Children	

Assessment Instrument, and Early Childhood Environment Rating Scale- Revised Edition (1998).....	214
Appendix B A Comparison of Subscales: Kaohsiung City Assessment Instrument, National Association for Education of Young Children Assessment Instrument, and Early Childhood Environment Rating Scale- Revised Edition (1998).....	217
Appendix C A Comparison of Items within the Early Childhood Education/Care in Assessment Instruments Matrix.....	218
Appendix D 2002 Kaohsiung City Nursery School Assessment Outcome .....	233
Appendix E Sampling of Kaohsiung City Registered Nursery School .....	234
Appendix F Questionnaires- The Nursery School Assessment Instrument: A Survey of Nursery School Directors and Teachers.....	235
Appendix G Cover Letter- The Nursery School Assessment Instrument: A survey of nursery school directors and teachers.....	258
Appendix H Informed Consent Form for Social Science Research .....	259
Appendix I Summary of the Research Questions Related Variables, Scale of Measurement, and Analysis Techniques .....	261
Appendix J The Comparison of the Present Study and the 2002 Kaohsiung City Nursery School Assessment Report.....	266
Appendix K Letter of Permission from the Social Affairs Bureau of Kaohsiung City Government .....	268



**LIST OF FIGURES**

Figure 1: Rational Systems Model.....	184
Figure 2: Natural Systems Model .....	188
Figure 3: Open Systems Model.....	190

## LIST OF TABLES

Table 1: Personal Information of Directors and Teachers (n = 78) .....	86
Table 2: School Information for Directors and Teachers (n = 78) .....	87
Table 3: Instructional Approaches Used in Respondent's Schools (n = 78) .....	88
Table 4: Number of Instructional Approaches Adopted in Respondent's School (n = 78) .....	88
Table 5: Paired Samples <i>t</i> -test for Professional Capability and Service Quality (n = 78) .....	91
Table 6: Frequency and Percentage of Agreement Regarding the Professional Capabilities and the Service Quality (n = 78).....	93
Table 7: Crosstabulation of Planning Curriculum According to Individual Need by Working Position (n = 12) .....	94
Table 8: Frequency and Percentage of Agreement Regarding the Use of Self- designed Activities and Packaged Instructional Materials (n = 78) .....	95
Table 9: Crosstabulation Between Formally Important and Informally Important by Not Adopting Activities from Packaged Instructional Materials (n = 78) .....	96
Table 10: Frequency for Working Position, Highest Education and Not Using Packaged Instructional Materials (n = 78).....	97
Table 11: Chi-square and <i>Phi</i> Correlation Between Working Position and Adopting ECE/C Activities by Formally Important and Informally Important (n = 78) .....	98
Table 12: Frequency and Percentage of Agreement Regarding Documenting (n = 78) .....	99
Table 13: Crosstabulation Between Highest Education and Regular Descriptions of Special Children's Cases (n = 78).....	101
Table 14: Frequency and Percentage of Agreement Regarding Documenting Parents' Contact Books, Children's Development, and Assessment Records (n = 78) .....	102
Table 15: Frequency and Percentage of Agreement with the Reasons for Documenting Parents' Contact Books, and Children's Development and Assessment Records .....	103

Table 16: Frequency and Percentage of Agreement with How Often the Directors and Teachers Document Parents' Contact Books, Children's Development and, Assessment Records.....	104
Table 17: Frequency and Percentage of Agreement with When Directors and Teachers Document Parents' Contact Books, Children's Development and Assessment Records .....	105
Table 18: Descriptive Statistic of Time Spend Writing in One Parent's Contact Book (n = 74).....	106
Table 19: Person Product-Moment Correlation Between Years of Being a Teacher and Time Spend Writing in One Parent's Contact Book (n = 78).....	107
Table 20: Paired Samples <i>t</i> -test for Family and Community Service (n = 78).....	108
Table 21: Frequency and Percentage of Agreement Regarding Family and Community Service (n =78) .....	110
Table 22: Chi-square Statistics and <i>Phi</i> Correlations for Family Services by Working Position (n =78) .....	112
Table 23: Crosstabulation of Parent Organizations by Working Position and Highest Education (n = 26).....	113
Table 24: Crosstabulation of Parental Growth Activities by Working Position and Highest Education (n = 23).....	114
Table 25: Point biserial Between Years of Being a Teacher and Formally Important for Family and Community Service (n = 78).....	115
Table 26: Point-biserial Correlation Between Years of Being a Teacher and Informally Important for Family and Community Service (n = 78).....	116
Table 27: Point-biserial Correlation Between Number of Children in Schools and Formally Important for Family and Community Service (n = 78) .....	118
Table 28: Point-biserial Correlation Between Number of Teachers in Schools and Formally Important for Family and Community Service (n =78) .....	119
Table 29: Point-biserial Correlation Between Number of Teachers in School and Informally Important for Family and Community Service (n = 78).....	120
Table 30: Crosstabulation of Not Teaching Writing (n = 78).....	121
Table 31: Crosstabulation of Not Teaching Chinese Phonetic Signs (n = 78) .....	122

Table 32: Chi-square Results for Not Teaching Writing and Chinese Phonetic Signs by Working Position (n = 78) .....	123
Table 33: Chi-square Results for Not Teaching Writing and Chinese Phonetic Signs by Highest Education (n = 78).....	125
Table 34: Crosstabulation Between Working Position and Highest Education and Not Teaching Writing and Chinese Phonetic Signs in Nursery Schools (n = 32) .....	126
Table 35: Point-biserial Correlation Between Caregivers' Age and Not Teaching Writing and Chinese Phonetic Signs (n =78) .....	127
Table 36: Pearson Correlation Between the Number of Children in a School and Not Teaching Writing and Chinese Phonetic Signs (n = 78).....	129
Table 37: Frequency and Percentage of Agreement Regarding Teaching Writing and Chinese Phonetic Signs (n = 78).....	130
Table 38: Frequency and Percentage of Agreement Regarding the Reasons for Teaching Writing and Chinese Phonetic Signs .....	131
Table 39: Pearson Product-moment Correlation of Attitudes Toward the Assessment Instrument of Professional Capability and Personal Characteristics (n = 78).....	134
Table 40: Point-biserial Correlations of Attitudes Toward the Assessment Instrument of Professional Capability on Working Position, Education and School Scores (n = 78).....	136
Table 41: Chi-square and <i>Phi</i> Correlation Between Working Position and Professional Capability (n = 78).....	137
Table 42: Point-biserial Correlations Coefficient Between Years of Being a Teacher and Professional Capability (n = 78) .....	139
Table 43: Frequency and Percentage Regarding the Ways of Participants Adopt ECE/C activities (n = 78).....	140
Table 44: Frequency and Percentage Regarding the Self-designed Activities and the Packaged Instructional Materials (n = 78).....	141
Table 45: Pearson Product-moment Coefficient of Attitudes Toward Using Self-designed Activities and Packaged Instructional Materials by Personal Characteristics (n = 78).....	143

Table 46: Point-biserial Correlation of Attitudes Toward Using Self-designed Activities and Packaged Instructional Materials by Personal Characteristics (n = 78) .....	144
Table 47: Chi-square and <i>Phi</i> Correlation Between Working Position and ECE/C Curricula (n = 78) .....	146
Table 48: Point-biserial Correlations of Attitudes Toward Using ECE/C Activities and Working Position (n = 78).....	148
Table 49: Pearson Product-moment Coefficient of Personal Characteristics and the Attitudes Toward Documentation (n = 78).....	150
Table 50: Point-biserial Correlation of Attitudes Toward Documentation by Working Position, Highest Education and School Scores (n = 78).....	151
Table 51: Chi-square and <i>Phi</i> Correlation Between Working Position and Attitudes Toward Documentation (n = 78).....	153
Table 52: Crosstabulation of Documentation in Classroom (n = 78) .....	154
Table 53: Crosstabulation for Select Case of Documentation by Working Position and Highest Education (n = 40).....	155
Table 54: Point-biserial Correlation Between Personal Characteristics and the Attitudes Toward Family Services (n = 78) .....	156
Table 55: Chi-square and <i>Phi</i> Correlation Results Between Personal Characteristics and the Attitudes Toward Family Service (n = 78).....	158
Table 56: Chi-square and <i>Phi</i> Correlation Between Chinese Phonetic Signs, Writing and Working Position (n = 78).....	159
Table 57: Frequency and Percentage of the Most Disagreement with the Governmental Nursery School Assessment Instrument (n = 78) .....	162
Table 58: Point-biserial Correlation Between School Size and Daily Routine (n = 78) .....	163
Table 59: Pearson Product-moment Coefficient Between School Scores and School Size (n = 78) .....	164

## ACKNOWLEDGEMENTS

This dissertation has benefited greatly from advice and encouragement of committee members and family. First of all, I am sincerely grateful to all four members of my dissertation committee, Dr. Yawkey, Dr. Myers, Dr. Shouse, and Dr. Yoder. I feel it an honor to have had the opportunities to receive guidance from a group of educators who used their expertise and experience to provide me with valuable input and critique along the way.

I particularly thank Dr. Yawkey for the active role that he played as an advisor over the past four years. He has been a true mentor to me. I am grateful for his helpful guidance throughout my dissertation and graduate education. He has helped me to be a better thinker, writer, and researcher. I am also sincerely grateful to Dr. Myers. He provided me with valuable insights and concrete suggestions for my questionnaire design and his challenges undoubtedly improved the final product.

I deeply appreciate Dr. Shouse who greatly assisted me in understanding the issues in applying the theories of the three systems models. I have learned very much from his unlimited intellectual curiosity and insights. He always shares his ideas and feedback with me. He offered constructive criticism and valuable suggestions for my study.

I am also genuinely indebted to Dr. Yoder for his guidance in the study design and data analysis. His particular insight helped me to structure this research and understand the data analysis techniques I used. He was always enthusiastic about my project and very patient with answering my questions during the entire process. He

carefully reviewed the details of every table and guided interpretation of data in the context of my dissertation. Without his assistance, I may not have achieved a substantially high-quality dissertation.

I also would like to express my appreciation to the Social Affairs Bureau of Kaohsiung City Government for approving this study. They gave me opportunities for being an assessing member and for experiencing nursery school assessment. Throughout, this process stimulated my thoughts to sharpen this study and investigate the problems of the nursery school assessment. I also wish to thank the nursery school directors and teachers in Kaohsiung City who participated in this study. This project would not have been possible without their willingness to answer the long questionnaire.

I owe extreme gratitude to my parents I-der Chen and Chuen-lian Ou for their constant encouragement and support for my education. They played a vital role and deserve all the credit for the achievements of my life and work. I am very grateful to my sister Wen-hui, my brother Tsungi-yi and Tsungi-chin for their words of wisdom and encouragement. I also would like to give hugs and thanks to my sons Kuan-fu and Kuan-wei, and my daughter Angela for understanding that their mom was constantly busy with work. They gave me the “space” to complete my dissertation.

Last but certainly not least, my heartfelt appreciation also goes to my husband Jun-lin for his dedication and support throughout my Ph.D. study. He postponed his career and took full responsibility for our children’s care. He always encouraged me to overcome the frustrations throughout the process. Without his thorough assistance and unfailing encouragement in both my academic work and daily life, it would have been impossible for me to complete my dissertation and doctoral degree.

## **Chapter 1**

### **BACKGROUND OF THE PROBLEM**

Children resemble sponges—they can take in whatever they observe. Young children are very curious and continually inquire into their environment. Early childhood is the first step in lifelong learning; it is the foundation for children's successful progress through later life. Education can be regarded as one of the most powerful tools in enhancing children's quality of life (Morrison, 2001). Thus, providing a high-quality learning program for young children is particularly important. A good deal of research indicates a significant correlation between program quality and children's outcomes. The better the program's quality, the more it supports the development of young children (Epstein, 2000; Katz, 2003; Sheridan & Schuster, 2001).

In Taiwan, two main early childhood services exist: kindergartens and nursery schools. Currently, the Department of Elementary Education in the Ministry of Education at the central government level is responsible for matters related to kindergartens. At the local government level, kindergartens are the responsibility of the Education Bureau. The Children's Bureau Ministry of the Interior at the central governmental level is responsible for nursery schools, while the Social Affairs Bureau at the local government level is in charge of matters related to nursery schools. Neither kindergartens nor nursery schools are part of the government mandated twelve-year compulsory education, and most of them are private (Lin, 2002). Kindergarten serves children age four to six and is considered an educational institution. According to the regulations of the Nursery School



Established Law, the nursery schools may enroll children ages one month to six years and emphasize both education and care (Lin, 2002). Therefore, many practitioners may prefer to establish nursery schools rather than kindergartens due to enrollment.

Currently, kindergarten teachers have a bachelor's degree from the typical four-year normal teachers college program. Nursery school must have four years of training from a variety of sources, including: home economics departments, youth/children welfare departments in some universities, and early childhood education/care in some universities of science and technology. According to Kindergarten Established Law and Nursery School Established Law, both kindergarten teachers and nursery school teachers who have two years of teaching experience qualify to be directors. While conceptually isolating the differences between kindergarten and nursery school and treating them as though they are separate entities is easy, the reality is that they are very similar in practice, in part due to the two-year overlap in the ages of children attending them.

In Taiwan, the Children's Bureau Ministry of the Interior regulates children's welfare affairs, which include promulgating the Children and Youth Welfare Law and the Nursery School Established Law. The local Social Affairs Bureau is the organization that carries out child welfare affairs, they modify the Nursery School Established Law according to local resources and situations, and they supervise all of the legally operating nursery schools, inspecting the safety and quality of children's learning environment, children's enrollment, and teacher qualifications. Based on the belief that all children have a right to quality care and education, the Children's Bureau Ministry of the Interior R.O.C. conducts an assessment instrument in nursery schools. Most of the local Social Affairs Bureaus regularly evaluate nursery schools to ensure the program conforms to

local standards. To pursue high-quality childcare, the local Social Affairs Bureaus budget grants and recruit professionals in early childhood education/care, and commit them to nursery school assessment.

Kaohsiung City (KC) is in the south of Taiwan, and the second largest city in Taiwan, the number of children under 12 years of age is approximately 227,396, which accounts for 15.06% of the total population in the city up to the end of 2002. The total area of the city is 153, 6029 square kilometers. The city's divisions include eleven governmental administrative districts, which contain 186 registered nursery schools. The Social Affairs Bureau of Kaohsiung City Government has only four officials in charge of child welfare, juvenile welfare, and women's welfare and affairs; nursery school regulations are one of the responsibilities in the child welfare arena. All registered nursery schools are private and financially responsible for all of their expenses. The Social Affairs Bureau of Kaohsiung City Government budgets two subsidy plans for young children. One is ten thousand Taiwan dollars (about 300 US dollars) per year for all citizens, ages five, and enrolled in the nursery schools. Another subsidy is three thousand Taiwan dollars (about 85 US dollars) per month for all children in poverty; but no grant or budget remits directly to the nursery schools.

### **Statement of the Problem**

Early childhood programs are the first schools in children's lives. Children's experiences in their early years powerfully influence their later development and learning so that the quality of the early childhood programs they attend should be a matter of great

concern (Katz, 2003). A great deal of research indicates a significant correlation between program quality and outcomes for children (Cryer, 1999; Peisner-Feinberg et al., 2001; Wishard et al., 2003).

In Taiwan, two different ministries regulate the two main early childhood services systems; two different academic teacher-training programs provide two kinds of teacher certificates. Since both kindergartens and nursery schools serve children age four to six and are mandated to have different systems, some problems and different opinions may emerge. Many people do not look at nursery schools as a regular education; they feel kindergartens have a higher education quality than nursery schools, while nursery schools have better quality care than kindergartens. In fact, the subscales of the Kaohsiung City assessment instrument put greater emphasis on the early childhood education/care area than on administration and health/safety. Besides, most of the local Social Affairs Bureaus regularly budget and evaluate nursery schools. The nursery school should not be looked at as being of secondary quality in early childhood education.

The Social Affairs Bureau of Kaohsiung City Government is in charge of many businesses such as child welfare, juvenile welfare, and women's welfare. Regulating the 186 registered nursery schools is only part of their work in child welfare. Regular nursery school assessment is a long-term project; as such, the Bureau may have difficulty operating an effective assessment. The Social Affairs Bureau of Kaohsiung City Government did not operate the nursery school assessment for eight years because of a shortage of money and human resources. In 2001, they obtained a grant for the nursery school assessment from the Children's Bureau Ministry of the Interior R.O.C.; they processed the assessment and publicly announced the outcomes.

In Taiwan, most of the local Social Affairs Bureaus regularly operate the nursery school assessment; all nursery schools have a mandate to participate in the assessment. Operating a good nursery school assessment takes time and is effort intensive. The Kaohsiung City Nursery School Assessment process basically includes, (1) setting an assessment plan, (2) recruiting and training assessment committee members, (3) conducting an assessment instrument, (4) conducting a pilot study, (5) modifying the assessment instrument, (6) introducing it to all nursery schools, (7) conducting the nursery school self-evaluation and process assessment, (8) calculating the scores, (9) announcing outcomes, (10) supervising the nursery school improvement, and (11) reevaluating the nursery schools that are found to be of lower quality. Spending significant time, energy and money in operating assessments is worthwhile if expending these resources can ensure that children have high-quality childcare. However, a complicated assessment may have some problems if not processed very precisely and carefully.

In the nursery school assessment plan, the assessment committee members play significant roles. They have to conduct an effective assessment instrument, which not only conforms to the professional code, but also considers the needs of children, parents, and practitioners. Most of the assessment committee members are recruited from academic authorities. Although the academic authorities' perspectives receive for greater consideration, more often, than those of the parents, children, and practitioners; the directors and teachers are key to providing high-quality early childhood programs and delivering positive effects to children (Decker & Decker, 2001; Howe & Jacobs, 1995).

Most of the academic authorities have abundant background in theory but may be lacking practical experience in a nursery school setting.

Traditionally, Taiwanese culture places great value on academic excellence. Parents want their children to learn more and achieve excellence. Parents worry about children's performance and achievements, because a diploma from a prestigious university is one of the keys to political and economic success. They prefer academic-oriented and teacher-directed approaches to play initiation; the parents believe children in the direct instruction program attain higher achievement scores immediately following preschool (Golbeck, 2002). Many parents leave teaching responsibilities to teachers. They may request teaching Chinese phonetic signs and writing so that their children are ready for elementary school, but doing so violates regulations of the Children's Bureau Ministry of the Interior R.O.C. Some directors and teachers may struggle between the standards of assessment and parents' expectations.

The Kaohsiung City assessment instrument expected regular documentation according to different records. The nursery schools' teachers spend all day long with children, and thus may have difficulty finding time to gather documentation. In Taiwan, many nursery school teachers spend off-school time planning curricula, and in regularly writing in the ECE/Care diary, children development records, and parents' contact books. Documenting has become a point of contention among the teachers. This regulation for documentation may not conform to practical execution in the classroom, nor may it provide high-quality working conditions for teachers, especially since the child-teacher ratio is high in Taiwan. If alternatives to inspecting teaching quality exist, and the necessity of requiring such documentation to show teaching evidence may disappear.

However, some documentation may be gathered just to satisfy the standards of the assessment committee members.

A good assessment instrument not only achieves high-quality childcare, but also considers the real situations of the practitioners. Directors and teachers can use it as self-study, so that they can obviously evaluate themselves and modify their activities to alleviate defects. It should also serve as a training tool, and allow supervisors to observe and provide constructive feedback (Epstein, 2000). Providing an ongoing program evaluation is a key to maintaining high-quality programs, and it is the responsibility of the government and academic authorities. Teachers, schools, communities, and the government all need to work together to conduct a valuable assessment, to use a valid instrument, and to comply with its results in the field to ensure that all children, parents, and teachers have high-quality programs.

### **Purpose of Study and Research Questions**

The overall purpose of this study is to gain an understanding of how nursery school directors and teachers ascertain the level of success of their schools. This understanding arises from an early childhood education/care (ECE/Care) assessment instrument. Other study-related goals include the following: (1) to ascertain the degree of compatibility between the conformability of the academic authorities' designing the assessment instrument and the practical process of daily operations in nursery schools; (2) to discover the gap, if any, between ideal regulations and real practices in nursery schools; (3) to elevate the importance of a valid ECE/Care assessment instrument; and (4)

to provide study findings to the Social Affairs Bureau of Kaohsiung City Government, for use in revising the assessment instrument in the future.

Various factors influence the ways in which nursery schools achieve the criteria contained in the assessment instrument used in this study. One of the important factors is that directors and teachers provide early childhood education/care services to children and parents in nursery schools. Achieving the purposes of this study, relies on the practical opinions of 78 nursery school directors and teachers from eight government administrative districts in Kaohsiung City. This study investigates their opinions using the early childhood education/care assessment instrument.

The central focus of the research is to answer the question, “What are the nursery school directors’ and teachers’ perceptions of real operations as ascertained through their responses to the study’s assessment instrument?” Some relevant secondary questions include the following:

1. How do the nursery school directors and teachers view academic authorities’ design of assessment instruments as tools for developing professional early childhood education/care?
2. How do the nursery school directors and teachers make decisions about developing self-designed activities and purchasing packaged instructional materials?
3. What are the views of nursery school directors and teachers about regularly documenting early childhood education/care?
4. What is the feasibility of parent education plans and family services?
5. What are the views of nursery school directors and teachers about not teaching Chinese phonetic signs (Pin-In) and writing in nursery schools?

6. What are the convergent and divergent views of nursery school directors and teachers regarding the existing governmental assessment instrument of early childhood education/care?
7. To what extent do the practitioners indicate disagreement with the items on the governmental assessment instrument?

### **Significance of the Study**

The increasing need for childcare services in Taiwan clearly indicates a trend toward an increased number of people looking for the high-quality early childhood programs. Currently, most research focuses on the definitions and standards of high-quality early childhood programs (Ceglowski & Bacigalupa, 2002; Rao et al., 2003), and how these programs positively affect children's development (Peisner-Feinberg et al., 2001). A nursery school, whether it seeks to achieve high-quality standards or not, must use a reliable assessment instrument in evaluating its program.

In order to use a reliable assessment instrument, academic authorities and practitioners cannot just play the role of supervisor and supervisee, but also must be academic authorities and practitioners. In fact, an extensive relationship in childcare among nursery school directors, teachers, parents, and children exists. As a result of the long-time cooperation, nursery school directors and teachers are more familiar with what parents and children need. Directors and teachers are the key to providing high-quality early childhood programs and delivering positive effects to children (Howe & Jacobs, 1995; Decker & Decker, 2001). Therefore, from the view of directors and teachers,



evaluation of the validity of the assessment instrument becomes significant for determining the quality of early childhood programs. However, the perspectives of directors and teachers toward assessment instruments have had minimal scrutiny (Goffin, 2003).

Experts from the government, certain professions, and academia dominate most of the descriptions and evaluations of quality care (Ceglowski & Bacigalupa, 2002). The act of conducting a study using a reliable assessment instrument should not only give preponderant respect to professionals/researchers, but also should involve more effort in gathering viewpoints from the childcare staff members (Katz, 1993; Ceglowski & Bacigalupa, 2002). Since directors and teachers provide services to children and families, their opinions can reduce the gap, if any, of the views of high-quality early childhood programs between academic authorities and practitioners. Further, not including those involved in nursery school teaching and administration may create false impressions from documentation for determining achievement of standards of assessment.

The use of the assessment instrument is a regulation from the Children's Bureau Ministry of the Interior R.O.C. All cities or counties use it as a guideline when evaluating their early childhood welfare programs. The Social Affairs Bureau of Kaohsiung City Government mandates that all registered nursery schools incorporate the nursery school assessment project. Since the mandate is that nursery schools must incorporate evaluation, and publicize the outcomes of the assessment (excellent nursery schools are especially likely to post positive news and announce it to society), the assessment instrument must be a reasonable and impartial tool for aiding nursery school choices.

High staff turnover rate is a serious phenomenon in Taiwan. Apparently, high staff turnover correlates with poor quality nursery schools. As well, children in nursery schools with high teacher turnover seem to feel less security about exploring and attaching themselves to the school environment. Regularly scheduled time for teachers is the best predictor of job satisfaction (Howe & Jacobs, 1995). In Taiwan, nursery school teachers usually spend off-school time in planning curricula, and in regularly documenting ECE/care diary & children development record & parents' contact books. This has become a point of complaint among teachers, especially during the assessment period. In order to decrease high teacher turnover rates, the ECE/Care assessment instrument also needs to consider the practical conditions of teachers and the difficulties in operating nursery schools (Hall & Cassidy, 2002).

The process of assessing early childhood programs may not only be ascertained by assessing the programs' quality, but also by improving the programs, especially if they are of low-quality. Currently, research shows that many nursery schools use assessment instruments as self-study and reflective educational tools, and the government has adopted them as guidelines for school improvement (West Virginia, 1997; Mangano, 1999; Hall & Cassidy, 2002). In addition, even though schools require teachers to have a bachelor's degree in early childhood education/care, directors are still the authority on school management. Executive directors may support or discourage teachers as to how they implement what they've learned about early childhood/care in their classrooms. Thus, finding conformability will help to affect management in nursery schools (Alter, 2001).

The significance of this study also arises from acting as a channel of communication between directors and teachers, and in bridging negotiations among the government, academic authorities, and practitioners. Further, its findings help to serve the children with a good quality environment, provide parents with recommendations for choosing a good quality nursery, and provide a reference for the Children's Bureau Ministry of the Interior R.O.C.

## **Chapter 2**

### **REVIEW OF THE LITERATURE**

As explained in Chapter 1, the primary purpose of this study is to explore the issue of early childhood program assessment in Kaohsiung City, Taiwan. The purpose of the current chapter is to review the relevant literature. This chapter encompasses seven sections: (1) the significance of early childhood education/care assessment, (2) high-quality early childhood programs, (3) how three different systems models interpret the phenomena of influencing nursery schools, (4) high-quality early childhood program assessment instruments, (5) early childhood education/care theories, (6) early childhood education/care approaches in Taiwan, and (7) respective advantages of the approaches regarding the Kaohsiung City nursery school assessment instrument.

#### **The Significance of Early Childhood Education/Care Assessment**

Early childhood education/care is children's first formal learning stage and has a significant long-term influence on their future learning and life prospects. Children construct their own knowledge based on what they observe and what they absorb from their surroundings, but they may be restricted by external factors such as adults and environment while they construct knowledge. The early childhood education/care assessment can check the external influence of adults

and environment, provide positive catalysts, and reduce the negative holds on children's development.

The better the quality of the program, the more it supports the development of young children (Epstein, 2000). Early childhood education/care assessment provides for supervising and improving teachers' teaching, learning quality, and ensuring children are cared for under appropriate developmental circumstances. Teachers can treat early childhood education/care assessment instrument as a self-study tool for supervising and reflecting on their own teaching of children. While all of the teachers have gone through pre-training courses and learn about professional ethics and skills needed to be a good teacher, they may ignore, imperceptibly, professional ethics and trends required to satisfy practical and individual needs. Using the assessment instrument, teachers gain basic guidelines that remind them of professional codes and enable them to interact sensitively with children and parents.

According to current studies, licensing of early childhood childcare usually applies to all private programs and provides a baseline of protection for children and parents (Azer et al., 2002; Epstein, 1999). Program assessment through nationally recognized standards of best practice could improve the delivery of quality childcare services (Mangano, 1999). Directors and teachers execute early childhood education/care by referring to these standards. Parents can refer to the criteria as they choose childcare programs for their children. The findings from the National Child Care Staffing Study indicate that accredited programs provide better than average quality of care (Hall & Cassidy, 2002).

Local governments also have to evaluate nursery schools regularly to ensure that they maintain licensing standards and childcare quality in the long term. Since licensing standards are the government regulations for all nursery schools, and since local governments regulating from higher licensing standards have better quality programs, the local governments play a key role, not only in inspecting the nursery schools, but also in supervising and supporting them in becoming qualified nursery schools. The purpose of the assessment is, not only to ensure the quality of early childhood programs, but also to help those schools that need to improve and need direction for doing so.

The assessment instrument often evaluates certain artificial or mechanical quality areas such as routine functions. The process quality, such as professional capabilities and interaction among teachers, children, and parents, are abstract and easy to ignore. Even assessing process quality is arduous—it requires finding evidence in a short period of time and may be more thoughtfully assessed than structural quality; both are significant components in supporting nursery schools' quality. Teachers can modify a shortage of structural quality if they use professional strategies such as field experience and peer tutoring. Different views lead to different evaluations; teachers often think in tightly connected processes that throw teaching into an evaluating criteria strike zone (Sergiovanni & Starratt, 2002). However, early childhood education/care assessment has to be built rigidly, based on not only product, but also process. In an open education system,

young children's learning may receive more emphasis in the learning process than the outcomes; the process will naturally appear different for skills learning.

Evaluation is a distinct human process that involves discernment and making personal judgments. The evaluation may be invalidated and the process repeated with different evaluators (Sergiovanni & Starratt, 2002). The consensus standard seeks more holistic agreement about the adequacy of the evaluation process itself and about what it means for the teacher. The criteria, as a framework, help to define a good practice. Uniform use of an assessment instrument might be appropriate for a limited range of teaching approaches but may be invalid for other teaching approaches. In fairness to all teachers, the criteria for teaching must prescribe what must be done in general, and the larger branches of the teaching tree point the way to better practice. In addition, teachers are observed in the classroom on only a handful of occasions; the assessing members must score carefully (Sergiovanni & Starratt, 2002).

An early childhood program will influence children's learning and development. Children's early experience will influence their later development and performance. Many parents believe children will develop better if they attend early childhood programs, and teachers should be better prepared to teach children than are parents. Therefore, parents tend to leave teaching responsibilities to teachers. Since the demand for early childhood education/care is increasing, the quality of early childhood programs should be of great concern. The assessment instrument ensures the quality of early childhood programs for children and families.

### **High-Quality Early Childhood Programs**

Over the past two decades, parents, policymakers, and practitioners have increased their attention on the quality of education/care in Taiwanese early childhood programs. High-quality early childhood programs can benefit both children's and families' lives. In general, the definition of quality includes safe and healthful care, developmentally appropriate stimulation, positive interactions with adults, encouragement of individual emotional growth, promotion of positive relationships with other children, and meeting physical/motor, language/literacy, and cognitive needs (Buell & Cassidy, 2001; Cryer, 1999).

Quality childcare provides warm, supportive interactions with adults in a safe, healthy, and stimulating environment. Quality care environment provides educational experiences, encourages parental involvement, safeguards the health and safety of children, occurs within adequate physical space, provides ample equipment for learning, and has a staff of individuals trained in child development and teaching methods appropriate for use with young children. Researchers have shown that children who are in high-quality programs advance more developmentally, and these differences persist into the early elementary grades. High-quality programs have long-term impacts on childcare experiences in the transition to, and success in, schools (Azer et al., 2002; Cryer, 1999; Peisner-Feinberg et al., 2001). Children in quality childcare have better work habits, better relationships with peers, better adjustment, and display less antisocial behavior than children who stay home with their mothers or have informal supervision by some other adults (Dunlap, 2002).



In touching upon practical early childhood programs, associated with quality features are more optimal developmental outcomes that include both structural quality and process quality. Structural quality variables in nursery schools include measures of group size, staff-child ratios, staff qualifications, staff professional development, teaching experience and stability, staff wages, parental fees, health and safety factors, and physical settings. Process quality variables refer to the provision of developmentally appropriate activities and care routines, and attempts to qualify the quality of interactions among staff, children and parents (Cryer, 1999; Rao et al., 2003).

The revision of *Developmentally Appropriate Practice in Early Childhood Programs* proposed five guidelines for decisions about developmentally appropriate practice. The five guidelines are: (1) creating a caring community for learners, (2) teaching to enhance development and learning, (3) constructing appropriate curriculum, (4) assessing children's learning and development, and (5) establishing reciprocal relationships with families (Bredekamp & Copple, 1997). Nursery schools can refer to these five guidelines and their descriptions while running their programs. The detailed descriptions provide clear strategies and directions for achieving good quality early childhood programs. Quality programming is also associated with higher levels of administrative experience and effectiveness in curriculum planning. Teachers' wages, education, and specialized training were found to be the most important factors that discriminate poor, mediocre, and good quality programs (Buell & Cassidy, 2001).

A state license regulates teacher education level and groups size characteristics, which are prerequisites for higher quality programs for young children and developmental outcomes (Howe & Jacobs, 1995). An ongoing program evaluation is a

key to maintaining such high-quality programs (Barclay & Benelli, 1996). Regulating through a national program of evaluation ensures high-quality staff and programs and provides good service to children and families.

### **High-Quality Curriculum**

Recent research shows that variables at the classroom level account for greater variation in student outcomes. Long-term influences of high-quality childcare had positive effects on children's language ability and sociability through kindergarten, and on math ability, thinking/attention skills, and problem behaviors through second grade (Cryer, 1999; Peisner-Feinberg et al., 2001).

An integrated curriculum, focusing around a major project theme, allows children to work together cooperatively and to explore their own interests while developing basic skills, and encourages children to choose from a broad base of diverse activities and to use their natural curiosity as a motivation for learning. In this type of curriculum operating process, high-quality classrooms display child-initiated, child-directed, active learning, and play-oriented, teacher-supported play that are the essential components of developmentally appropriate practice. In lower-quality classrooms, children, who mostly engage in teacher-directed programs that emphasize whole-group instruction, compliance, obedience, quiet learning and less creativity, become dependent on adult authority. Research links these developmentally inappropriate practices to low reasoning and problem-solving skills, poorer prosocial conforming behaviors and fewer positive feelings about competence during the early grade school years (Wiltz & Klein, 2001).

### **The Interaction among the High-Quality Features**

The features of a good quality program connect with each other. Experienced directors provide good work environment, which attract qualified teachers and reduce teacher turnover rates. Qualified teachers are familiar with children's developmental needs, prompting them to create a learning environment that leads to good quality interaction with children and parents. High teacher retention can promote a stable relationship between teachers and children, and support the children's secure attachment to school. Low staff-child ratios increase the teacher's planning time and the chances of communication among teachers, children and parents (Sheridan & Schuster, 2001; Rao et al., 2003). Creating a good communication channel between schools and parents not only reduces the conflicts over different expectations, but also extends school resources. Making full use of parents' professional and personal involvement is the most advantageous resource in classroom teaching (Liu & Chien 1998).

The higher quality process provides all children with gains in the development of skills and abilities that are associated with better child outcomes in the short term, and enables them to make successful transitions to elementary school and later life in society in the long term. For instance, preschool program curricula have been found to be a critical factor in determining children's social and cognitive development; these advanced developments and differences persist into the early elementary grades (Wishard et al., 2003).

## **Influences on Variations of High-Quality Early Childhood Programs**

A carefully planned curriculum leads to more than a higher-quality program. Other factors, including teacher training, staff-child interactions, well-designed classrooms, director's continuing education, ongoing program evaluation and parental involvement, contribute to high-quality programs in early education/care (Hall & Cassidy, 2002). Katz (1993) suggests four perspectives on the quality of childcare: (a) the perspective of researchers and professionals in the field, (b) the perspective of parents using childcare, (c) the perspective of childcare staff, and (d) the perspective of the children in childcare.

### ***The Perspective of Researchers and Professionals in the Field***

The researchers and professionals in the field devote scientific techniques to investigating high-quality early childhood program features and effects. They contribute to professional studies and findings to promote early childhood services and influence the welfare of society.

Children are at the root of national development; concern for children's welfare is a symbol of a developing country. In Taiwan, the local Social Affairs Bureau is the oversight authority for nursery schools. It regulates early childhood programs' policies, and most of the descriptions and evaluations of quality care are dominated by experts from the government and the professionals in the field (Ceglowski & Bacigalupa, 2002). Regulation and policy could be handled by a group of professionals in the field who

influence early childhood education/care operations. The government gives the preponderance of credence to the professionals and researchers in policy formulation. Perhaps most policy and regulation formulated by third-party professionals and researchers may not always conform to the needs of users. The government trusts the professional authorities; therefore, the authorities need to be more careful when providing their opinions and adopt the perspectives of parents, children, and practitioners while they develop regulations.

### ***The Perspective of Parents and Children***

Parents send children to nursery school due to either their jobs or their concerns for their children's learning (Ceglowski & Bacigalupa, 2002). Parents and children are the people who use the early childhood programs. Providing good service depends on listening and learning from the people we served. Effective programs are responsive to the unique needs of parents and children, and entail interaction between teachers, children, parents, program resources, and outcomes. The uniqueness of parents arises from the varied aspects of their lives' contexts (Jacobson & Engelbrecht, 2000).

An interdependent relationship exists in childcare among nursery school directors, teachers, parents, and children. Chinese parents tend to be very involved in child training (Chen & Luster, 2002). Many parents expect their children to begin to learn reading, writing, and math along with learning to sit still, listen attentively, and to do seat work. Parents indicate their expectations to the school; the director and teachers may modify their service according to these expectations. Parents need to work together with teachers

and provide information on children's home lives to the school. Since children learn better if their parents and teachers cooperate closely, most nursery schools plan monthly family service or parental education programs to convince parents of their early childhood education/care goals and reduce the conflict if any differences in expectation arise (Farrar, 1999; Welch & Whit, 1999). Because schools satisfy the parents' different perspectives of quality, parents gave programs higher ratings than professionals in this field, but also possibly true is that dominating the description and evaluation of quality care are the opinions of experts from the government, certain professions, and academic research (Ceglowski & Bacigalupa, 2002).

### ***The Perspective of Childcare Staff***

The directors and teachers are key to providing high-quality early childhood programs and exerting positive influence on children (Decker & Decker, 2001; Howe & Jacobs, 1995). Good management relies on communication among all levels of program staff and administration (Alter, 2001). Teachers' behavior and the emotional climate of the classroom they create, influence the nature of their peer-peer, child-teacher and teacher-parent relationships (Wishard et al., 2003). Both preservice and inservice training have a positive impact on quality of services. Teacher's formal education relates positively to program quality. Inservice training has an impact on quality professional development (Azer et al., 2002; Epstein, 1999). In the hierarchies of authority, directors influence teachers' beliefs and teaching behavior (Chien, 2001). Qualified teachers get good training in their college courses, although what they learn in study teaching may be

very different from what they experience in practice. Teachers may insist on their beliefs or adjust themselves according to the culture of their society; they may quit or be fired if they cannot make adjustments.

### **Interpreting the Phenomena of Three Systems That Influence Nursery Schools**

The rational-systems, natural-systems, and open-systems are three models of organizations inferred from specific phenomena of operating nursery schools. Rationality is a set of actions, organized and implemented to achieve predetermined goals with maximum efficiency. The natural-systems model has its roots in human relations and emphasizes the human side of administration in the operation of a nursery school. The open-systems model arose from a reaction to the unrealistic assumption that nursery school behavior could be isolated from external forces; this model has environment as an influence, but is also dependent on people (Hoy & Miskel, 2001).

#### **Rational Systems Model**

The rational-systems model seeks to understand organizational behavior toward the formal goals, rules and procedures that produce high-quality education. Based on the belief that all children have a right to quality care and education, the government and the directors regulate the organizational goals for all staff in order to generate efficient outcomes in high-quality early childhood programs (Hoy & Miskel, 2001).

In touching upon high-quality early childhood programs, in rational-systems the curriculum becomes a significant issue for promoting the goals. Child-centered and child-initiated approaches are the catalysts and appear in most high-quality curricula (Wiltz & Klein, 2001). Many professionals in this field advocate the child-centered approach and believe that children will perform better if they can process internal learning. Many nursery schools seek and align their original goals and procedures to achieve a high-quality teaching approach. While the nursery school directors decide on the teaching approach they are going to adopt in their school, all of the teachers are required to attend in-service training and to become familiar with the teaching approach. The teachers must write curriculum plans according to the children's interests. The teachers implement the curriculum very flexibly, depending on the pace of children, so that the children engage in active learning. The child-centered approach advocates the belief that the learning process is more important than the outcome. The children, with permission, choose freely their activities and discover the materials in the classroom. Teachers and children interact, cooperate, and co-learn throughout the whole curriculum. The teachers are guides, facilitators, and researchers as children learn. They observe and discuss with children; they not only plan the curriculum, but also spend most of their time as recorders, documenting activities in children's portfolios. These are the appropriate types of teaching activities in a child-centered approach.

Following this model may be hard for the teachers who lack experience in writing curriculum plans, and who purchase packaged instructional materials. However, directors decode the goals and all staff work toward accountability to ensure that their individual performances promote the child-centered approach, and thus attain effectiveness.



### **Natural Systems Model**

The basic assumptions of the natural-systems model predict that the organization will adjust the rules to consider individual needs rather than formal goals. This model predicts that instructional techniques will align more closely with teachers' beliefs and experiences about what children need. When teachers have different opinions about high-quality teaching approaches, teachers may challenge the formal goals and rules with individual beliefs. Teachers may form an informal organization and generate social relationships. If the informal organization is very powerful, the teachers' needs may become the informal norms and internal school policies to influence the schools' and classrooms' management (Hoy & Miskel, 2001).

Since 1987, most teachers training uses the teacher-directed approach, and so far many of them still adhere to this approach in their classrooms in Taiwan. They prefer it to the teacher-directed approach because it is easy to prepare a curriculum or develop beliefs about children's effective learning (Golbeck, 2002). In Taiwan, several nursery schools prefer packaged instructional materials in lieu of creating and conducting their own curricula. The packaged instructional materials provide textbooks and materials for children and teaching guides for teachers. In using packaged instructional materials, the teachers may save time over writing their own curriculum plans and finding resources. The use of these packages also aids those teachers who do not know how to plan a curriculum. On the other hand, adopting the child-centered approach, the curriculum needs to be very flexible according to the teachers' observations of the children and fit the classroom environment and materials accordingly. In addition, the nursery school

teachers demand some direct instruction because the beginning of elementary school tends to favor more the teacher-directed approaches, and children in direct instruction programs had slightly higher achievement scores immediately after finishing preschool (Golbeck, 2002). In the teacher-directed curriculum, the teachers also easily evaluate children's learning by using fixed formats which leads to finding ways to improve children's learning.

Many nursery teachers have lengthy teaching experiences with the teacher-directed approach and they believe it to be the optimal approach in putting the children on the right track. In addition, if they think that they are going to retire soon, they won't spend much energy on the new approach if it won't benefit them for a length of time they remain teaching. While the teachers' preferences conflict with organizational goals, some nursery schools may realign their goals. In Taiwan, conducting two approaches simultaneously occurs in some nursery schools; some classes have adopted the Project Approach (child-centered approach) and other classes have adopted the Thematic Unit Approach (teacher-directed approach) (Helm & Katze, 2001; Lu, 2001). The teachers can choose the approach most familiar, and the parents may enroll the children in the preferred approach. The professionals in early childhood education/care also found that many teachers adopt the Project Approach but tend to implement the teacher-directed way by providing children with more direction and less free investigation.

In Taiwan, many directors do not have formal administrative training, and they promote their management skills while they run nursery schools. The culture of the school in which directors' work influences their behavior (Chien, 2001). Directors play a leadership role in the nursery schools, they may need to negotiate and comply with

teacher groups instead of imposing their authority in order to reduce teacher turnover rates.

### **Open Systems Model**

The open-systems model predicts that external demands and incentives will influence school decisions about implementing which approach in the schools. The external variables can be parents' expectations, children enrollment, and political pressure. Formal and informal goals may fall sacrificially to external factors which are more powerful than organizational goals or individual staff needs (Hoy & Miskel, 2001).

Parents' expectations originate from their personal backgrounds, their experiences, professional literature, other early childhood educators, the media and children (Grossman, 1999). Traditionally, Taiwanese culture places great value on academic excellence. Parents want their children to learn more and achieve excellence. Parents worry about children's performance and achievements, and they usually give some feedback to directors or teachers after children's enrollment in nursery schools. The directors and teachers may modify their service according to the feedback (Chen & Luster, 2002). Many parents prefer the academic-oriented and teacher-directed approaches to play initiation. They may expect the teachers to teach particular subjects or concepts to their children.

Many parents believe children in the direct instruction program attain higher achievement scores immediately following preschool (Golbeck, 2002). They may request the teaching of Chinese phonetic signs and writing so that their children are ready for

elementary school, but such instruction may harm young children's fine motor development, and is prohibited by regulation of the Social Affairs Bureau of Kaohsiung City Government. Some directors and teachers may struggle with the conflict between the government's regulations and parents' expectations. They may teach the children Chinese phonetic signs and writing to reduce the risk of low enrollment, but the schools will not show any evidence of such teaching to the government. Many preschool teachers within the same school do not agree with program objectives and cannot explain the educational philosophy that guides the curriculum (Wishard et al., 2003).

Professionals in early childhood education usually declare their opinions through the media or publications. The government usually listens to their opinion while they regulate policy. They are external catalysts for instituting high-quality early childhood programs. However, political pressures can be powerful external incentives for influencing the government regulations. Businessmen or politicians operate some nursery schools in Taiwan. Changing the government regulations may occur as a result of political pressure and social requests. The external incentives may interact with each other. Currently, many parents request the nursery schools to include English lessons in Taiwan. To promote children's enrollment, most nursery schools provide English lessons to attract parents. Professionals in early childhood education present research evidence that backs the prohibition of English lessons in nursery schools. However, political and parental pressures are more powerful in influencing the government's final decision.

Three systems models have different aspects for interpreting organizational behavior. The rational-systems model explains the standards for school management principles, organized and implemented to achieve the goal of providing good quality

childcare. The natural-systems model concentrates on understanding the human side of administration, and adjusts the formal goals to satisfy staff's needs. Use of the open-systems model satisfies the need to understand the external demands and incentives that influence nursery schools' operations. Nursery school goals, the individual needs of employees, and parents' expectations have the same significance, and they interplay in overall school management. Nursery schools usually plan parental education to convince parents of the school's early childhood education/care goals and to reduce conflict if differences in expectations arise. Providing teachers with in-service training can bridge formal goals and informal goals. Nursery school is a place to educate and provide care for children; children's needs must be given priority. Establishing organizational goals to satisfy personal needs will lead to efficient and high-quality early childhood programs.

### **High-Quality Early Childhood Program Assessment Instruments**

A good program evaluation tool is essential to help cooperation to improve program quality. Program assessments make the greatest contribution to the early childhood education if they have been tested and validated. The most effective program assessment involves defining quality along a continuum, which helps programs identify the position on the path to achieving quality, and identify the successive steps to be taken to continue progress.

An effective quality evaluation includes many characteristics. An effective program quality assessment should serve as a training tool and reveal staff training needs. During the assessment process, supervisors can observe individual staff members and

provide them with constructive feedback. In addition, valid, program quality, measures are essential for research and program evaluation, and can communicate to many audiences (Epstein, 2000). Many different early childhood program assessment instruments are used to ensure that children have quality childcare. To meet rigorous scientific standards, the instruments must define terminology and decision-making criteria. If this is done, the assessment instrument may demonstrate its validity in relation to other program quality measures.

Many programs and studies have adopted the NAEYC (1998) assessment instrument and the ECERS as essential for their evaluation and research (Harms et al., 1998). Makin et al. (2000) used the ECERS in assessing high-quality literacy programs in early childhood classrooms. It was also employed in a cross-national comparison of how parents in Germany and the U.S. perceive the quality of the ECE services their preschoolers receive in the two different cultures. Early childhood programs in Germany and Sweden can receive more publicity if assessment of their quality evaluations uses the ECERS (Cryer et al., 2002; Sheridan & Schuster, 2001). Hall and Cassidy (2002) stated that the NAEYC assessment standards represent a level of quality that exceeds the licensing standards and current level of care in most U.S. states. The Illinois State Department of Human Services (2002) included the NAEYC assessment instrument when they compared seven sets of early childhood program standards. Thus, the NAEYC assessment instrument and ECERS can be two effective program quality assessment instruments and find use as tools to determine if other assessment instruments are reasonable and valid.

### **Kaohsiung City (KC) Assessment Instrument**

The Kaohsiung City assessment instrument comprises three sections: Administrative Management, Early Childhood Education/Care, and Health and Safety (see Appendix A). Committee members from the Children's Bureau Ministry of the Interior R.O. C., regulate these three aspects according to the people who have responsibilities in a nursery school. In general, a nursery school has three departments: administration, education and nursing, and cooking and cleaning. The owner, the director and the manager are in charge of administration management. The nursery school teachers take responsibility for education/care, which includes care given to cognitive, physical, and psychological development. The nursing and kitchen staff are responsible for supporting health and safety programs.

The executive director has responsibility for administrative management as it pertains to regulations, laws, policy, operating social events, and school governance. Teachers are in charge of the classroom, working with children and parents; they take responsibility for the portions of early childhood education/care that include curriculum preparation, classroom environment setup, care given to children and interactions with parents. Nurses inspect and keep children's health records. Kitchen and cleaning staff provide nutritious food and a clean environment for children and staff. All have responsibility for Health and Safety. The subscales of the Kaohsiung City assessment instrument are sorted according to the people who have responsibility for management of various school functions (see Appendix B). Therefore, after processing the evaluation of

nursery schools, locating problems, finding the staff with accountability and requesting that they improve their work is relatively easy.

### **National Association for the Education of Young Children (NAEYC) Assessment Instrument**

The NAEYC assessment instrument comprises ten subscales: (A) Interactions among Teachers and Children, (B) Curriculum, (C) Relationships among Teachers and Families, (D) Staff Qualifications and Development, (E) Administration, (F) Staffing, (G) Physical Environment, (H) Health and Safety, (I) Nutrition and Food Service, and (J) Evaluation (see Appendix A).

These ten subscales seem to be categorized according to the people who use a nursery school, and the people who accept the outcomes or benefits when the nursery schools achieve the criteria in the subscales. Children, parents (families), teachers (staff) and directors are the members who form a nursery school (see Appendix B). Each subscale creates the provision for a service to one or two of the member groups. Nursery school mandates require providing high-quality services to children according to these subscales: Interactions among Teachers and Children, Curriculum, Physical Environment, Health and Safety, Nutrition and Food Service, and Evaluation. Parents or families receive benefits from the subscale of Relationships among Teachers and Families. Teachers and directors are the recipients of the effects in the subscales of Staff Qualifications and Development, Administration, Staffing, Physical Environment, and Evaluation (see Appendix B).



The NAEYC categorized the assessment instrument according to the people who will receive the outcomes or benefits. Effective governance structures distribute outcomes between consumers and servers. Children and parents are the consumers while directors and teachers are the servers. Both directors and teachers are consumers and servers of each other's work. Teachers cooperate with directors and provide performance; directors offer benefit packages and comfortable working environments to teachers. Hence, nursery schools can adjust the serving principles according to the people who use the service, analyze the characteristics of users, and respond to the needs of consumers.

### **Early Childhood Environment Rating Scale (ECERS)**

Seven subscales are in this instrument: A. Space and Furnishing, B. Personal Care Routines, C. Language-Reasoning, D. Activities, E. Interaction, F. Program Structure, and G. Parents and Staff Formulate Early Childhood Environment Rating Scale (see Appendix A). Factors categorize these subscales according to process quality and structural quality. Process quality includes supervision, greeting, discipline and language use (see Appendix B). The subscales of Personal Care Routines, Language-Reasoning, Interaction, and Parent and Staff imply process quality. Facilities and materials refer to characteristics of structural quality. The subscales of Space and Furnishing, books and pictures in Language-Reasoning, Activities (materials), and Program Structure imply structural quality.

The ECERS organized the subscale into two categories: structural quality, which is visual inspection of a nursery school and process quality, which takes time to observe, to

consider and to define according to circumstances. A structural quality has less room for argument than a process quality; a structural quality is easy to modify, but a process quality takes time to improve. However, process qualities are at the core of professional development. Professional spirit and knowledge can compensate for the shortfall in structural dimensions (Katz, 2003).

### **An Investigation into Three Assessment Instruments**

Structuring the Kaohsiung City assessment instrument occurs according to the administrative structure in a nursery school, and is an optimal organizing tool for assessing members and nursery schools. First, the city government can recruit professionals in administration, early childhood education/care, and health and safety to conduct or revise the assessment instrument according to their specialties and training. Then the nursery school assessment committee assigns the assessing members, who are professionals in this field to be in charge of specific subscales. The assessing members can thoroughly evaluate and accurately determine program quality while they score each item on the assessment instruments. They not only can ask precisely worded questions of the people who are being assessed, but they can also exactly ascertain who has questions about the quality of the instrument and score. The nursery schools that are assessed can assign staff that are in charge of the practical work on the subscales to show their performance regarding each subscale, and determine if they need more information or to modify any questions about criteria arise from an assessing member. Both assessing members and practitioners communicate in the same language and in doing so may

reduce misunderstandings and misevaluations while conducting the assessment. Such a system increases the validity of the assessment instrument and the reliability of the assessing process and outcome.

An effective assessment should also serve as a training tool, and allow supervisors to observe and provide constructive feedback. After assessment, nursery schools may need to improve and/or modify some subscales. The administrative structure can identify the people who need to improve their work. Therefore, this process not only provides high-quality childcare to children, but also leads to efficiently operating nursery schools.

A long relationship exists in childcare among nursery school directors, teachers, parents, and children. As a result of this long-time cooperation, the nursery school directors and teachers are more familiar with what the parents and children need. The directors and teachers are the key to providing high-quality early childhood programs and delivering positive effects to children (Decker & Decker, 2001; Howe & Jacobs, 1995). The assessment committee categorizes the subscales of the Kaohsiung City assessment instrument according to the professional duties of the directors and teachers, and the way they operate the nursery schools. In following this process the professionals in early childhood education, the directors and teachers, may accept the method for grouping subscales. Furthermore, studying the details of each item helps understand if they fit the practical work of directors and teachers, and the needs of children and parents. The outcome can help clarify whether or not an effective instrument will provide professional descriptions but as well as follow the correct format to increase the facility and reliability of the assessment instrument. This review may also convince people that the subscales do not need revision for the future.

## **A Comparison of Items on Three Assessment Instruments within ECE/Care**

The following description compares the NAEYC assessment instrument and the ECERS to identify any weaknesses or strengths in the Kaohsiung City assessment instrument within early childhood education/care (see Appendix C).

### ***Definite Description***

A good assessment instrument requires a clear description of each standard. People use it as a self-study tool, so that they can evaluate themselves and modify defects according to each standard. A detailed description increases the chance of convergent opinions among the assessing members and decreases the differences while scoring the instrument. It also reduces the conflicts between the government and practitioners after announcing the outcomes of the assessment (Epstein, 2000). Some items in the Kaohsiung City (KC) assessment instrument, the NAEYC, and the ECERS are not clear, such as KC-3- safe measures (see Appendix C). Specifically, a clear description of how electric outlets, shelves, tables, and walls should be handled in the interest of safety is not apparent. The NAEYC interprets “safe measures” as protective caps on electric outlets and no sharp edges on furniture. In addition, the ECERS advises “ample indoor space that allows children and adults to move around freely,” but the number of square feet per child appears in the Kaohsiung City assessment instrument and the NAEYC assessment instruments. In addition, “setup the shelves and tables creatively” (KC-7) is not clear to everyone; addressing this comment may depend on personal experience and opinion.

*Exclusive Items*

A reliable assessment instrument will contain most items, which also can be found in many other assessment instruments. High-quality early childhood programs have similar characteristics. The people who work in the field should support the most important (and identical) items and approve their inclusion on the assessment instrument. The process qualities are at the core of professional development and children learn better if their parents and teachers expectations are closely aligned. In the assessment instrument, numerous items relate to the interaction or relationship between teachers, children and parents (families). If the items do not appear on other assessment instruments, perhaps consideration is in order as to whether the requirement is reasonable or necessary, or interprets the presence or absence as due to cultural diversity. Some items required in the KC assessment instrument are not in the NAEYC and the ECERS, such as, resource room, staff dress code, preparing materials before class, the theme of curriculum, and having a self-designed curriculum discussed among teachers. In addition, KC-17 directs teachers in regard to their use of body motion while they carry out ECE/Care activities. This standard does not appear in the NAEYC and the ECERS, because “body motion” may differ according to age group and the issue of teacher-directed vs. child-initiated activity (see Appendix C).

*Professional Development in Early Childhood Education/Care*

Currently, teachers' professional development is a significant issue in early childhood programs. Educators who work with young children and their families to provide high-quality programs, and their professional development are major channels in the development of such programs (Decker & Decker, 2001). Enhancing teachers' professional training and educational qualifications may be the best way to enhance preschool process quality (Rao et al., 2003). Professional development includes those processes that improve job-related knowledge, skills, and attitudes in order to facilitate personal and professional growth (Click, 2000). Nevertheless, the KC assessment instrument merely evaluates whether teachers have active learning and self-reflection (KC-22), and whether teachers exhibit a professional attitude with children and parents. When the expectation is that teachers engage in self-reflection and active learning, professional resources and environment are catalysts toward achieving the goal. The assessment instrument needs to evaluate whether nursery schools provide opportunities and resources to support teachers' professional development and growth. The assessment instrument can require providing ongoing professional development opportunities, a staff room, a staff-training plan, self-evaluation, adult equipment, and break-time to improve teachers' professional knowledge and environment (NAEYC, 1998). The programs' support staff attend courses and conferences, provide a professional library, adult lounge area, and adult furniture, and require that annual supervisory observations be helpful. These criteria enhance teachers' professional capabilities (Harms et al., 1998).

### *Curriculum/Activities*

Most parents have concern for their children's learning curriculum/activities in the nursery schools. Teaching curriculum/activities is a major portion of the teacher's daily work. Currently, due to the influence of the Project Approach and High/Scope Approach, many academic authorities advocate the "theme" curriculum for practicing teachers and ECE students. "Theme" curriculum is a useful method for integrating knowledge from different fields such as daily life, sociality, math, language and science. It is also a valuable way to deliver whole-child pedagogy through a whole-language approach. However, the NAEYC and the ECERS do not require curricula to have "themes" in its criteria. Theme is not a necessary requirement in some approaches, such as the Learning-Center Approach or the Montessori Approach.

In Taiwan, several nursery schools prefer packaged instructional materials over self-designed, detailed, curricula for their children. However, high-quality nursery schools require professional teachers to know curriculum design. The teachers plan curricula according to their observation of the children and establish the environment and materials in the classroom accordingly. In the meantime, teachers who track children's interests, flexibly adjust curriculum, with respect to the children's pace. Both the KC and the NAEYC evaluate written plans and age-appropriate materials and equipment; the ECERS only inquires about materials settings, which are categories in the Learning Center Approach.

In addition, teaching writing, teaching Chinese phonetic signs and talented classes are prohibited activities in nursery schools in Taiwan. Some studies advocate early

literacy and emerging literature. Low literacy can be associated with a range of social problems, including unemployment and delinquency (Makin et al., 2000). The overall quality of a childcare program has been found to be an important determinant of positive effects on language and preliteracy skills (Snow et al., 1999). In Taiwan, teaching young children writing is prohibited because many teachers require children to write in a small grid and young children's fine motor skills are not developed well, yet daily-writing experiences are widespread in early childhood classrooms (Moutray & Snell, 2003). Children love to write; prohibiting writing does not respect children's rights and needs. The assessment instrument should focus on the ways teachers' teach writing instead of just passively excluding it.

### ***Documenting Early Childhood Education/Care Regularly***

Researchers have found documenting children's learning is one of the most valuable skills a teacher can learn (Helm et al., 1997; Katz, 1996). The benefits of documentation could be more effectively communicated with families, so that teachers are able to respond to demands for accountability and be more effective in meeting special needs (Benson & Smith, 1998; Helm et al., 1997). Both KC and NAEYC assessment instruments inquire as to individual descriptions of children's development, and require regular notation in the parent's contact book.

Even though the documentation benefits children, parents, the school, and teachers themselves, finding time to produce regular documentation is still difficult for teachers. In Taiwan, many nursery school teachers spend off-school time for planning the



curriculum, and regularly writing in the ECE/Care diary and child development records and parent contact books. Some teachers indicate that they would rather spend more time in caring for children than in engaging in required regular documentation. This has become a point of contention among teachers, and further influences teacher recruitment and retention.

### ***Feasible Family Services***

Good school family relations positively correlate with indicators of school performance (Adams & Christenson, 2000; Welch & White, 1999). Improving home-school communication was identified as a primary way to enhance school-family relations. However, teachers understand what parents expect children to learn, but parents were less clear about teachers' expectations (Weikart, 1999). Family service plans are helpful in shortening the gap in expectations between parents and teachers.

Early childhood program assessment instruments provide some advice for working with families, such as parental service and interaction with parents. The feasibility of some items needs some consideration with regard teachers and families. The purpose of home visits is for teachers to be aware of children's home lives and to develop a close relationship with families, but such activity may mean lost time in traffic and may also cause safety problems. Many teachers become exhausted with the regular organization of field trips, parties and games with families. They would rather spend more time observing children and focusing on children's development than planning families' activities or greeting parents. Parents usually appreciate the teachers who

concentrate on caring for children. Parents' involvement can increase families' positive attitudes toward the school, but parents may have difficulty acting as volunteers if they have regular jobs. In addition, teachers have special training in early childhood education/care or human development, but they may not have much background in psychology or physiology. Teachers may have difficulty in establishing a schedule or telephone line for parent consultation, which the KC assessment instrument suggests.

Although school-family relations are important, children are the motivation for building on the relationship. Some schools repeatedly train children for performance at parties. Repeated rehearsal does not respect children's development and makes them bored with these activities. Teachers also become tired of pushing children toward repeated practice and planning the performance. High-quality school-family relationships should build on collaborative interaction, and ongoing two-way communication with children's parents, and establish positive relationships with them based on mutual trust and respect (Goffin, 2003).

All three-assessment instruments—Kaohsiung City, NAEYC, and ECERS—are to be used in evaluating early childhood programs according to different characteristics in instrument formatting. The Kaohsiung City assessment instrument, regulated by the Children's Bureau Ministry of the Interior R.O.C., is considered a nationally recognized criteria. The KC assessment instrument merely lists the basic requirements. In the interest of impartiality, the KC instrument assesses the equipment, materials and children's books according to quantity. However, the quality of materials is more important than quantity to children. In comparing the NAEYC assessment instrument and ECERS, some descriptions in the KC are not comprehensible and detailed, which makes aspects unclear

to assessment members or teachers since they need to interpret some criteria according to their own experience.

In addition, the KC assessment instrument requires regular documentation of varying records. This regulation may not conform to practical execution in the classroom, especially since the child-teacher ratio is high in Taiwan. Teacher's professional development and growth are the keys to high-quality in nursery schools. The school, the community, and even the government have responsibilities to provide opportunities and resources for continuing education and ongoing professional development to nursery school teachers. For this reason, the assessment instrument needs to supervise the school's responsibility to provide ongoing professional development for teachers. An ongoing program evaluation is a key to maintaining high-quality programs. Teachers, schools, communities, and the government all need to work together to conduct a valuable assessment, using a valid instrument, to comply with it in the field, and to use it as a self-reflective educational tool. In light of the findings, teachers and schools must continually improve and maintain high standards, and thus all children, parents, and teachers can benefit from high-quality nursery schools.

### **Early Childhood Education/Care Theories**

Early childhood educators throughout the world share the belief that teacher qualifications and knowledge about child development relate to the quality of early childhood services (Mellor & Chan, 2002). The following theories, relate to early childhood development, allow teaching strategies supported by the findings of research.

## **Cognitive Development**

Cognitive development is a function of physiological maturation. Children's cognitive development is the result of their own efforts to make sense of their world. Early childhood educators study and observe children's cognitive development, and employ the findings into childcare programs to provide a high-quality learning environment. According to research on children's cognitive development, early childhood approaches build suitable teaching theories and strategies to promote children's learning quality.

Piaget proposed four stages of cognitive development: sensorimotor stage, preoperational stage, concrete operations stage, and formal operations stage. Nursery school children ages 0-6 are in the sensorimotor stage- based primarily on behaviors, and perception and the preoperational stage- in which symbolic thought and language are prominent, but the child does not reason in logical ways yet (Piaget & Inhelder, 2000). According to Piaget, children develop schemes that allow them to respond to their environment through a developmental process called adaptation. Adaptation occurs as a result of assimilation and accommodation. Assimilation is when children apply existing schemes to fit into a changed environment and to input the process. In contrast, children modify the existing schemes to adapt to a new situation; this is accommodation (Piaget & Inhelder, 2000).

Children's development occurs through assimilation to accommodation to achieve equilibration. Equilibrium is when children are satisfied with their way of thinking or interpreting a problem (Piaget & Inhelder, 2000). Adults can support students' cognitive

development by influencing the process of equilibration. Equilibration refers to the mechanism of changes in thinking and a process that promotes the development of increasingly complex forms of thought and knowledge.

According to Erikson, children ages 3 to 6 years old struggle with the need to take initiative versus feeling guilty. During this stage children attempt to act “grown up” and often try to take responsibility for things beyond their capability. They may develop a positive sense of initiative; they learn to retain this sense without impinging on the rights and goals of others and without the need to do things perfectly. Children repeat “trial and error” to continuously find out cause and effect.

Vygotsky (1978) believed addressing children’s needs best occurs when teachers are aware of their children’s zone of proximal development (ZPD). The ZPD is the distance between the actual developmental level as determined by independent problem solving and the level or potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (p. 86). Teachers, parents, and peers help children do things that they cannot do by themselves by scaffolding their learning. Scaffolding is the guidance or structure provided by more competent individuals that enables children to perform tasks within their zone of proximal development. Both children interacting with adults and co-operating with peers are scaffolds that support learning (Berk, & Winsler, 1995).

Vygotsky (1997) proposed the value of thinking for inner education. “Thinking is not only a mechanism that complicates and refines out interaction with the external world, but also guides the inner aspect of out behavior” (Vygotsky, 1997). People usually self-talk while they think. Self-talk evolves into inner speech, in which children mentally

talk to themselves and continue to direct themselves verbally through tasks and activities. People conduct their thoughts and plans through inner speech. Inner speech increases when children are performing more challenging tasks, those at which they must work harder to be successful (Vygotsky & Luria, 1998).

Montessori believed children's development moved through "Sensitive Periods," which are blocks of time in children's lives when they are absorbed with one characteristic of environment to the exclusion of all others. The Sensitive Periods manifest themselves in the individual as intense interest in repeating certain actions, at length, for no obvious reason; the majority of these periods come at ages 0-6. The Sensitive Periods are: sensitive period for order - desire to put things where they belong, sensitive period for a desire to explore the environment with tongue and hands - absorb the qualities of the objects in the environment, sensitive period for walking - walk to develop physical powers, sensitive period for details - focus on minute details and tiny objects, sensitive period for social aspects of life – establish a community with others. The Sensitive Periods describe the pattern children follows in gaining knowledge. In addition, the pheromone of the Absorbent Mind explains the special quality and process by which they accomplish this knowledge (Lillard, 1972). Children learn through sense organs to utilize information from seeing, tasting, touching, hearing, smelling, and physical movement of the body. Knowledge about early perceptual abilities is critical and useful for enhancing learning.

## **Play Theory**

Play makes important contributions to all aspects of child development (Johnson, et al., 1999). Psychologists have long been aware of the value of play for children's social development, such as developing cooperation and conflict resolution skills (Mcdevitt & Ormrod, 2004; Mussen, 1979; Vygotsky, 1997). Play can help children experiment with new combinations of objects, identify cause-effect relationships, and learn more about other people's perspectives.

Erikson called his third stage of development, from ages 4–6, the play age. At this age children engage in both solitary and cooperative play as it helps them to develop their initiative and deal with their disappointments and failures (Mcdevitt & Ormrod, 2004). Piaget (2000) considered play to be a product of assimilation. "The child needs a means of self-expression, that is, a system of signifiers constructed by him and capable of being bent to his wishes, such is the system of symbols characteristic of symbolic play" (Piaget & Inhelder, 2000). The assimilation applies a symbolic language, developed by the self and capable of being modified according to the needs of play. Piaget (2000) proposed three principal categories of play: exercise play, symbolic play, and games with rules (Piaget & Inhelder, 2000). During play, children act out their already established behaviors and adapt reality to create an enjoyable fit.

"Play is an instinctive activity, also serves to exercise other instincts, and is the natural school of the young animal, its self-teacher and very own animal trainer" (Vygotsky & Luria, 1998). Vygotsky viewed play as important to the social and emotional development of children as well as to their cognitive development. Pretense

probably helps children begin to distinguish between external objects and internal representation. Through socio-dramatic play, children gain a greater appreciation for what other people might be thinking and feeling. They develop skills in planning, communication, cooperation, and problem solving that will be important for their later success in the adult world.

Smillansky (1990) researched children's play behaviors and showed five basic forms of play: (1) functional or exploratory play, (2) constructive play, (3) dramatic play, (4) socio-dramatic play, and (5) games with rules. These five forms are similar to the environment established by the Learning Center Approach. In functional or exploratory play, children use sensory motor abilities to learn about their surroundings. In constructive play children combine blocks, Legos, or other objects. In dramatic play children apply either imaginary or real processes of dramatic play centers and block centers to pretend to be someone else, presenting their thoughts and emotions. The socio-dramatic play shows the co-operation between children around a theme and evolves over a period of time. In the games with rules, children regulate controlled rules for co-operative players to process the games; the rules on which the participants depend can be changed and adjusted.

### **Social Interactions**

Interacting with other children gives children more opportunity to discover whether or not their thinking and behavior are appropriate to all situations (Piaget & Inhelder, 2000). By exchanging ideas, and arguing with others, children gradually begin



to realize that different individuals see things differently and abate their egocentric view of the world.

Vygotsky stated that the form a person's cognition takes is strongly influenced by the needs of society and culture, and language supports cognitive development. Children need opportunities to manipulate language, either by speaking with others or to themselves to progress to more mature ways of thinking. In the zone of proximal development, children engage in collaborative activities within specific social environments. Children internalize and transform the feedback they receive from others, and use the feedback to regulate their own behavior (Petrick Steward, 1995). Vygotsky emphasized that interaction with adults and peers extends experience, and he believed that children would be able to attempt more complex tasks if they had some support from others. More advanced adults and peers can scaffold the children's learning in the zone of proximal development (Vygotsky, 1997). Peers become influential agents of socialization, training by reinforcing certain responses and serving as models for imitation and identification (Mussen, 1979).

With advancing age, during the nursery school period, interactions increase in frequency, intensity, and duration. The late stages of play contain more social interactions. Children spend more time in cooperative activities and playing with others in joint projects, and sharing materials. Children's increased physical and cognitive skills permit participation in more complex cooperative activities (Mussen, 1979). Social competence includes the capacity to initiate, develop, and maintain satisfying reciprocal relationships with others, especially peers. Teachers need to provide children with opportunities to listen and anticipate each other's ideas and questions, to resolve

arguments, to offer assistance to each other, to communicate their own suggestions and thoughts to their coworkers, and to coordinate their effort with others (Katz & Chard, 2000).

### **Early Childhood Education/Care Approaches in Taiwan**

In the last decade, the early childhood education approaches have undergone significant changes in Taiwan. In 1987, the Ministry of Education in Taiwan began to regulate the Thematic-Unit approach as an integral curriculum in kindergarten. At that time, academic authorities believed in the Learning Center Approach as applied through play theory. Playing not only gives children individual experiences, but also attracts children to learning. Meanwhile, some parents hesitate to have their children learn through play. Montessori schools, which have materials for children's academic learning, were another choice for parents. In the High/Scope Approach, the "Wheel of Learning" gave teachers clear ideas for processing the curriculum. The charm of the Reggio Approach spread widely throughout the early childhood education field and has the recommendation of many academic authorities in Taiwan. The integrated approach for curriculum planning is much more accepted and implemented now than in the past. The early childhood approach, while differing in educational philosophies and purpose, generally intends to provide activities that the programs believed may help promote children's cognitive and social development.

## **Thematic-Unit Approach**

In 1987, the Ministry of Education in Taiwan regulated the Thematic-Unit Approach as an integrated, integral curriculum in kindergarten (Chien, 1998). This regulation required all early childhood teachers to learn the Thematic-Unit Approach in their preservice training and to adopt this approach in the early childhood programs. Many parents and commentators who address educational issues seem to believe that children should be engaged in formal instruction or in early literacy and math exercises. Until now, the Thematic-Unit Approach remains the most widely used in Taiwan (Lin, 2002). The main idea of this regulation is to change traditional teaching by incorporating different subjects. A Thematic-Unit integrates a variety of different subjects into a set of learning activities.

The Thematic-Unit Approach organization cuts across subject-matter lines, bringing various aspects of the curriculum together into association to focus upon broad areas of study. Thematic instruction is an interdisciplinary teaching approach that integrates different subjects into a whole group of learning activities according to themes or topics. These activities usually relate to children's daily lives and to teaching them problem-solving skills. The Thematic-Unit curriculum is teacher-directed, includes precise planning and is a fixed process in Taiwan. The concept of interdisciplinary thematic units—instructional activities that are thematically meaningful, structured, and organized across curriculum areas—provides teachers with an opportunity to guide the study of critical components in the curriculum. A unit has to contain several activities of cognition development, disposition development, and skill development. This approach

has three fixed steps while the teachers process activities. At first, the teachers carry out the preparation of activities to motivate children's interest in a unit. Then, developing activities teach children basic knowledge and provide hands-on experiences. Finally, synthesizing activities allow children to share what they are learning and represent the outcomes from this unit. In addition, in Taiwan, most nursery schools conduct the Thematic-Unit curriculum plan in a fixed format, with the same writing style and sentence structure. The teachers need to write the curriculum plan before the start of school.

The Thematic-Unit Approach is a teacher-directed curriculum within the whole group children, with the teacher taking all responsibilities, which include planning the curriculum, activities, materials, setting up the environment, and teaching the activities. The children play a passive role in accepting the learning activities selected by the teacher. The teachers and children can predict the learning process and outcomes, while establishing the curriculum and assessment instrument occurs before unit activities begin. The teachers can efficiently manage classrooms because they are using less material than other approaches and also because all children receive the same instruction.

Due to the characteristics of the preplanned curriculum and the fixed format, or the fact that teachers may not have enough experience to adopt their own curriculum plan, or because of other significant reasons for saving time and finding resources, the directors and teachers may purchase packaged instructional materials provided by some commercial agencies rather than have curriculum designed by teachers themselves. However, the pre-planned curriculum may lack integrity and may be unrelated to children's interests and individual differences. Most of the packaged instructional

materials are very academic and achievement-oriented. They focus on learning reading, writing, and arithmetic to prepare children for first grade in response to parents' expectations.

### **Learning Centers Approach**

More than ten years ago, the learning centers approach arrived from western culture into the Taiwanese early childhood education/care field. Many professionals in this field received education and training in western countries and brought back the Learning Centers Approach, based on play theory (Isbell, 1995). The experience of play enables children to develop the foundation for other forms of development connected to academic learning (Youngquist & Pataray-Ching, 2004). Programs organized around learning centers and interactive play activities do teach reading, writing, and arithmetic, but in a way that young children can understand at their levels of development (Work, 2002).

Learning centers, used frequently in nursery schools, are effective in providing children with subject area enrichment and giving children an opportunity to explore and experience many different fields. Each child can work at an individual pace, with materials designed to meet particular needs and level of learning. Learning centers can develop and evaluate individual skill, and find resources to improve specific experiences. They represent a child-centered approach for creating meaningful learning contexts in the nursery schools. This approach allows teachers to create an environment in which they and students work together as active learners.

Carefully designed learning centers contain a variety of learning activities and materials drawn from the classroom's basic skills program. The core centers, which are typically found in Taiwanese nursery schools, include blocks, sand and water, art, dramatic play, manipulation, science and discovery, language, games/puzzles, and carpentry centers (Su, 2001). The design of center optimizes concrete learning and enables children to explore a wide variety of objects and materials. Due to space and budget limitations, most nursery schools in Taiwan can only adopt four to six centers; dramatic play, block, art, games/puzzles, and language exist most commonly in the nursery school classroom. Many nursery schools design the learning centers approach within themes and units. Therefore, Learning Center Approach exists alongside other approaches with the exception of the Montessori Approach. Themes and units are useful methods for integrating knowledge from different fields and centers. The teachers can organize all centers to relate to a theme or a unit, and to integrate different subjects into whole learning (Jones, 1999).

The curriculum plan varies by schools; the teachers may conduct the curriculum plan either by a month or a semester. The schools adopt the Learning Center Approach according to themes that usually require a monthly curriculum plan. Regularly replacing themes or units can refresh the atmosphere, and keep teaching and learning interesting. The curriculum plan assignments are according to each learning center and usually include the description of the learning experience conducted by this center, a list of toys and materials, and the key points in designing this center. In addition, if conducted according to a theme, then the goal is the identification of items that need to be added in the curriculum plan. Classrooms built around activity centers provide ongoing learning

and assessment. Each day children have periods of time to select the areas in which they wish to play. For older children, the teacher may assign them “contracts” on certain activities such as language, math, and science, to ensure their academic learning in preparation for elementary school. The criteria of assessment can be very general according to the goals of each learning center, or can be more specifically related to the theme (Su, 2001).

The Learning Centers Approach is one of the open education models and satisfies children’s individual needs. In the classroom, children are free to play and talk; they also are free to choose a learning center and materials. Many children love to go to school because they can play at their favorite activities. Teachers need to appreciate that the freedom and noises in the classroom are the medium for children’s learning. Due to the approach having less teaching and being more child-initiated, the teachers’ self-motivation and self-regulation have become very important. Professional nursery school teachers are very active in playing with children and observing the children; unprofessional teachers may leave children to play by themselves without any interaction.

### **Montessori Approach**

Since 1984, the Montessori approach has been widespread in Taiwan. Many Catholic nursery schools have adopted the Montessori approach (Chien, 2001). The delicate learning environment and serial materials have attracted many parents and practitioners. Some directors and teachers adopt the Montessori approach to increase children’s enrollment. Several organizations provide Montessori teacher training with

270 hours of courses. The Montessori approach is a controversial educational method among professionals and practitioners in the field. In 1914, Kilpatrick criticized the Montessori school as not fostering social cooperation among children, and not having variation in materials and lessons (Chattin-McNichols, 1992). Many professionals in this field argue that the lesson presentation is too stiff in the learning atmosphere. However, many parents embrace it and choose the Montessori school for their children. The practitioners may struggle between the academic authorities and parents.

Montessori proposed many theories to guide the Montessorian and the Montessori school, applying sensitive period, absorbent mind, and normalization to children's development. The sensitive period is the most readily apparent in the early years of childhood and involves the period in which the child is particularly receptive to certain stimuli. An absorbent mind has a great ability to learn and assimilate effortlessly and unconsciously from the surrounding world. It permits an unconscious absorption of the environment by means of a special pre-conscious state of mind. The child constructs his mind in this way until he has established memory, the power to understand, and the ability to reason (Lillard, 1972). Normalization is the process that involves meeting a child's needs through this activity of concentration. The new state of psychic integration the child had thereby reached was actually his normal state (Lillard, 1972). Isolation of difficulty, control of error, and point of interest are features of the materials and lesson plans. Isolation of difficulty focuses the child's attention on that one thing and organizes the child sensorial integration (e.g., Montessori materials- Long rod only compares the length of the rod). Control of error is in the material itself, and the child has concrete evidence of it. The desire of the child to attain an end that he knows, leads him to correct



himself and also shows auto-education (Lillard, 1972). Point of interest brings the child back to looking at something many times by showing a new point of interest (Chattin-McNichols, 1992).

The Montessori school is also called a children's house; the environment offered provides them the opportunity to develop their activities (Montessori, 1964). The children's house has a set of rooms and a garden, in which the children can work and dine in the open air (Turner, 1999). The six basic components of the children's house are: (1) concepts of freedom, (2) structure and order, (3) reality and nature, (4) beauty and atmosphere, (5) Montessori materials, and (6) development of community life (Lillard, 1972). Turner (1999) described briefly Montessori's vision for a developmentally appropriate physical environment. The eight criteria for environmental assessment are: (1) structure/arrangement, (2) decor/sensory aspects, (3) storage, (4) furnishings, (5) equipment, (6) safety, (7) cleanliness, and (8) adult/community space. A peaceful and quiet classroom allows children to concentrate on manipulating materials and respecting each other. The classroom, highly organized and neat, has decoration of delicate artifacts. The Montessori materials comprise six categories: (1) practical life, (2) sensorial, (3) math, (4) language, (5) culture, and (6) artistic materials (Lillard, 1972). Each category contains serial materials and has pre-requirements among them (Chattin-McNichols, 1992). The Montessori Approach emphasizes academic learning. The six categories of materials play a systematic role in teaching and interaction. Children who work in practical life materials develop good fine motor skills and prepare for writing (Rule & Stewart, 2002). Children who work on sensorial material train to think logically and

prepared for math and language. However, many teachers only emphasize external teaching, and ignore the internal spirit and philosophy of the Montessori approach.

Further, most of the Montessori materials have fixed lessons and presentations. The Montessori teachers usually design both monthly and weekly curriculum plans, which include each category of materials. Many Montessori schools adopt themes to integrate children's learning as a whole. The learning assessment instrument is a checklist divided by six categories of materials, and lists the materials in learning order, such as from simple to complex and concrete to abstract. The scale for recording the evaluation is closed-ended with ordered degrees such as introducing the material, practicing the material, and mastering the material.

Maria Montessori believed that adults should observe children and prepare an optimal environment and materials for them. Teachers need proficiency in presentation of Montessori materials. Teachers are models for children; they not only present materials, but also act as models for behavior and discipline. Traditional Montessori teachers have very high expectations of themselves; they reinforce ground rules, and their attitudes may be serious while they interact with children (Montessori, 1964).

In the Montessori school, children, teachers and environment are three elements in teaching (Chattin-McNichols, 1992). Children are the center of the classroom; teachers prepare the environment for children, and children work in the environment and reflect their learning in the environment to teachers. Adults and their peers respect children; they have the right not to be interrupted while they concentrate on work. Even when many academic authorities criticize the Montessori approach, many children speak enthusiastically about the Montessori activities (Rule & Stewart, 2002).

## **High/Scope Approach**

In Taiwan, only a few nursery schools have adopted the High/Scope approach, but it also attracts many professionals in this field as well as practitioners. David Weikart and his colleagues originally developed it in the 1960s for use in the High/Scope Perry preschool program in the U.S. In 1998, Weikart went to Taiwan to propose his project. Many nursery schools showed interest in the novel approach, but they did not know how to apply it in their schools (Weikart, 1998).

The High/Scope Approach based on Piaget's constructivist theory of child development, has the belief that active learning is fundamental to the full development of human potential and that active learning occurs most effectively in settings that provide developmentally appropriate learning opportunities (Epstein et al., 1996; Hohmann & Weikart, 1995). This approach adopts the "Wheel of Learning" to illustrate the curriculum principles that guide High/Scope preschool practitioners in their daily work with children. The Wheel of Learning includes: (1) active learning, (2) adult-child interaction, (3) learning environment, (4) daily routine, and (5) assessment. They believe that through active learning the children will have direct and immediate experiences and derive meaning from them through reflection.

The plan-do-review process is at the center of the High/Scope active learning approach. Children are active learners; they make their own daily plans, follow through on them, and later recall and share with peers and teachers what they have done. In this way, children learn to articulate their intentions and reflect on their actions (Hohmann & Weikart, 1995). The High/Scope Approach adopts an active learning spirit into the

academic curriculum. This approach provides ten key experiences in evaluating children's learning to be sure the learning is on the right track. A series of key experiences describe how children perceive and act in their environment. The ten key experiences are: (1) creative representation, (2) language and literacy, (3) initiative and social relations, (4) movement, (5) music, (6) classification, (7) seriation, (8) number, (9) space, and (10) time. The plan-do-review impresses many people who are in this field; it may be an organized way to use a learning center. The High/Scope setting has divisions according to interest areas such as, sand and water area, block area, house area, art area, toy area, book and writing area, woodworking area, music and movement area, and computer area (Hohmann & Weikart, 1995).

In the High/Scope preschool approach, assessment includes a range of tasks, teamwork, daily anecdotal notes, and daily planning sessions. The High/Scope Child Observation Record (COR) is a basic assessment instrument in this approach. In combination with the COR, over several months' work with children, the adult writes brief notes describing episodes of the young children's behavior in initiative, social relations, creative representation, music and movement, language and literacy, and logic and mathematics. These notes, then uses classify the child's behavior on thirty COR items using a scale with five levels. The High/Scope Approach requires teachers to work together as a team. In daily team planning, they use anecdotes as a starting point for planning ways to support children's learning. Teachers set up interest areas and provide supplies to support children's plans and improve their skills and learning.

## **Project Approach**

According to Piaget (1976, 2000) and Vygotsky (1997), children construct their knowledge when their present level of thinking faces the challenge of new information and points out discrepancies in their current cognitive level. The challenge is from interactions with peers, adults, and the physical environment. Children actively investigate to change their cognitive structures to adapt to new knowledge. These researchers also suggested that children's knowledge is co-constructed with others in a social context. According to Vygotsky's concept of the zone of proximal development, parents, teachers and more competent peers will best scaffold children while they are between the actual and potential levels of development.

In recent years, the Project Approach and the Reggio Emilia approach have been introduced in many Taiwanese preschools and have received most of the attention in the early childhood field (Liu & Chien, 1998). An overall aim of the Project Approach is to cultivate the life of the young child's mind. In its fullest sense the term "mind" includes not only knowledge and skills, but also social, emotional, moral, aesthetic, and spiritual sensibilities. Children construct their own knowledge and create their own minds (Katz & Chard, 2000). The Project Approach advocates child-centered and problem solving pedagogy; children's sense-making activities can be recognized as efforts to achieve the best understanding they can develop within their intellectual capacities.

In the Project Approach design, three phases employ topic study over an extended period of time. The three phases are, planning and getting started, projects in progress, and reflections and conclusions. Teachers and children start by selecting project topics,

anticipatory web planning, building common experiences, finding out what children know, developing questions for investigation, and setting up the classroom for investigation. In developing the project stage, they move into investigation, solving problems and field-site visits. Fieldwork gives children real experience in the things they want to investigate. Concluding the project, the last phase, includes documenting children's learning and evaluating the project (Helm & Katz, 2001). Display and share can present how children work and integrate their learning; they are encouraged to represent their ideas in multiple forms (Trepanier-Street, 2000). Discussion is a major catalyst in developing a project from start to end; participants share their conceptions and misconceptions about the topic, and negotiate the project's direction with their peers and teacher. Children use inquiry through investigation to produce deeper thinking.

In Taiwan, the nursery schools adopt the Project Approach, which also establishes a few learning centers in the classroom. Children can play in the learning centers if they choose not to engage in the project; teachers use learning centers to improve specific skills and can also be places for transition activities. Children most frequently use art and recycled supplies. Children's cooperative products occupy the majority of the classroom time. The classroom may not look neat and organized during the process of the project, but it shows that children are actively learning.

Children are active constructors of knowledge and authors of their own learning. Children must set their goals for each project. Due to the in-depth study in the Project Approach, while engaging in a project, children act as researchers as they explore, observe, question, discuss, hypothesize, further refine and clarify their understandings. In addition, Project Approach used parents as important resources; invitations to parents

involve them in the project. They discuss their own experiences and knowledge with the children and provide information, pictures, books, and objects to help the whole group in pursuit of knowledge on the topic. Parents also have invitations to see the projects the children have been doing.

Teachers document children's progress in a formative evaluation that involves a review of the project as it is in process (Mindes, 2003). The children and teachers use the documentation to revisit their thinking, review the project, plan additional projects, and share the project with parents and other community members (Trepanier-Street, 2000). The documentation can be individual portfolios, products, observations, child self-reflections, and narratives of learning experiences (Helm & Katz, 2001). Due to the belief that the learning process is more important than the outcome, in the Project Approach classroom, teachers and children interact, cooperate, and co-learn throughout the whole project. The teachers are guides, facilitators, and researchers to the children as they learn. Teachers observe and discuss with children; they not only plan the thematic web, but also spend most of their time as recorders in documenting activities in children's portfolios.

In Taiwan, due to the early childhood program's favoring of the Reggio Emilia Approach, nursery school directors think their schools may receive excellent and good evaluation scores in program assessment if they adopt the Projects Approach. Projects provide contexts in which express children's curiosity purposefully and enable them to experience the joy of self-motivated learning. The Project Approach seems to be high qualified curriculum throughout the world (Hewett, 2001). It represents a child-center, child-initiated and self-reflection learning approach that leads to the highest quality education. Teachers increase their knowledge while being co-learners with children; they

regularly document children's portfolios and behave ethically in their positions.

However, while many teachers are impressed with the Project Approach, they are not qualified to teach it. They direct most of the process, and they may not care whether children achieve their goals as they set them up at the beginning. They may lose the child-initiated principle if they just focus on teaching skills and do not know the real philosophy of the Project Approach.

### **The Respective Advantages of the Approaches to the Kaohsiung City Assessment Instrument**

Currently, many early childhood approaches have been adopted by 186 Kaohsiung City registered nursery schools. The Thematic-Unit Approach, Learning Center Approach, Montessori Approach, Project Approach, and High/Scope Approach are the mostly widely used in Taiwan.

### **Kaohsiung City (KC) Assessment Instrument within Early Childhood Education/Care**

The Kaohsiung City assessment instrument within early childhood education/care comprises subscales of: environmental plan and safe management, and practicing affairs of early childhood education/care. The subscales of environmental plan and safe management include fourteen items that emphasize the overall environmental setting,



children's furniture, and early childhood education/care equipment and materials (see Appendix C). The sub-subscales of practicing affairs of early childhood education/care combine five sub-subscales, which include forty-five items. They mainly focus on teachers' professional knowledge and skills, curriculum design and operation, and relationships with family (see Appendix C). The five sub-subscales of practicing affairs of early childhood education/care are: (1) caregivers' professional attitude and serving quality, (2) activities' design and operating of early childhood education/care, (3) young children's learning and counseling, (4) life education and care, and (5) family and community Service (see Appendix C).

Since the Kaohsiung City Nursery School Assessment is mandatory and all nursery schools have assessment requirements, the assessment instrument has become significant to all approaches. Most of the criteria in the Kaohsiung City (KC) assessment instrument are very general and suitable for these five approaches. The generalization could reduce arguments between the city government and practitioners. However, different approaches may have different features, which can be an advantage or disadvantage to them in the Kaohsiung City Nursery School Assessment.

### **Environmental Plan and Safe Management**

All five approaches contain materials and books in their environment, but the number of materials may differ. The classrooms that adopt the Thematic-Unit Approach may have less material than other approaches unless they combine other approaches. The Montessori Approach has the greatest amount of teaching materials. Besides, even now

most of the nursery schools conduct the curriculum plan within a theme, but some schools that adopt the Montessori Approach and the Learning Centers Approach may not require themes in their classroom settings (KC-10).

### **Caregivers' Professional Capability and Serving Quality**

Teachers' professional development is a significant issue in early childhood programs. Professional knowledge and attitudes relate to the quality of early childhood services. The Thematic-Unit Approach is a teacher-directed pedagogy; compared to other approaches, children in this classroom may only need fewer responses and interactions with teachers and peers; Montessori teachers respect children who have a right not to be interrupted during the work time, resulting in less social interaction (KC-16). Many Montessori teachers are serious when they present the materials to children. Therefore, they usually display graceful attitudes in the classroom, and seldom use active body language with children, which is required in the evaluation (KC-17). Many Thematic-Unit classrooms have only one teacher, so curricula may not be discussed among teachers; on the other hand, the Project Approach and High/Scope Approach operate co-teacher meetings regularly to share daily experiences and plan for tomorrow (KC-19).

The Thematic-Unit curriculum is a precise planning and fixed process; teachers usually schedule many units for a whole semester. They may not want to be more flexible in the plan. The teachers, who adopt the Project Approach, construct theme webs as a curriculum plan. Theme webs contain several different concepts and activities without a time schedule. Following children's interests and pace while they engage in projects are

requirements in the Project Approach; therefore, the teachers are more flexible in their time arrangements (KC-20). The teachers who adopt the High/Scope Approach attend required daily team planning sessions. They use anecdotes as a starting point for planning ways to support children's learning. The roles of teachers in the Project Approach are researchers and co-learners. The teachers in both approaches naturally become self-reflectors (KC-22).

### **Activities' Design and Operating Early Childhood Education/Care**

In comparison to other approaches, the teachers in both the Project Approach and High/Scope have frequent meetings with colleague (KC-23). All of these five approaches have written curriculum plans, but the teachers who work in the Thematic-Unit Approach may purchase packaged instructional materials that are not recommended by the KC assessment instrument (KC-25). The teachers in the Thematic-Unit Approach write curriculum plans longitudinally, including making transitions among activities, and this precise format may not exist in other approaches (KC-27). Montessori lesson presentation embraces individuals, small groups, and large groups. Children who receive the Learning Center Approach, Project Approach, and High/Scope Approach also have more than one option for activities available to them most of the day. However, the teaching method in the Thematic-Unit Approach is mostly for the whole group, and so it may disregard children's individual needs (KC-30). In the Project Approach classroom, children design their projects, and teachers have to observe children and document the process of projects; the daily team planning in High/Scope Approach includes required writing in a

classroom diary (KC-32). Children document their projects and post them on bulletin boards to share with others; they also may get oral or written feed back from their peers or teachers. This process can promote children's literacy without formal teaching of writing (KC-33).

### **Young Children's Learning and Counseling**

Active learning is at the core of the wheel diagram in the High/Scope Approach. Children are active constructors of knowledge in the Project Approach classroom, and authors of their own learning. While engaging in a project, children are researchers as they explore, observe, question, discuss, and hypothesize. These processes naturally shape children into active learners. Due to the features of teacher-directed and teaching in the whole group, the children who come from the Thematic-Unit classroom may not have many opportunities to choose activities they like (KC-35). In the Thematic-Unit Approach, all children participate in the same activities, thereby making documentation easier in the parent contact books in the same format (KC-37).

All five approaches emphasize establishing learning activities and environments that conform to children's development; but documenting children's developments and record keeping should include cognitive, social, emoting, and physical aspects. This may be found mostly in the Thematic-Unit Approach (KC-38). The Thematic Approach, Montessori Approach, Learning Center Approach, and High/Scope Approach all adopt closed-ended, order scales, assessment instruments. The teachers who work in the Project Approach usually document children in individual portfolios and collect children's

products; both of them are formative evaluations (KC-40). In addition, in the Project Approach classroom, the children display their products while they conclude the project. Due to in-depth study, the products usually greatly impress adults by the long periods devoted to the investigations (KC-41).

### **Life Education and Care**

Practical Life is an initial curriculum in the Montessori Approach; the lesson plans include self and environmental caring. Children learn, step-by-step, about specific skills such as blowing their noses, buttoning, tying shoes, and passing objects to other people. Both children and parents appreciate the practical life area, not only because of the interesting materials, but also because children like to be independent and parents like the help with daily duties. Likewise, the format of Thematic-Unit includes activities that teach children about living customs. Both of these approaches provide fixed curricula and procedures to teach basic life education and care (KC-43 to 46). In addition, the children from the Montessori classroom show better self-regulation than children from other approaches. Perhaps the peaceful atmosphere in the classroom and the fact that teachers are proficient in the presentation of Montessori materials contribute to this aspect of children's behavior. The Montessori teachers also have very high expectations for themselves and children, so that teachers' attitudes may influence children's discipline (KC-43).

## **Family and Community Service**

Good school-family relations positively correlate with indicators of children's performances. The Project Approach has an advantage in using parents as a resource. Invitations involve parents in projects; they may receive notes that inform of their children's progress on the projects, or they may be expected to assist their children in looking for some resources. Teachers always make full use of parents' professional and community resources to promote the quality of projects (Liu & Chien 1998). At the end of a project, parents participate at school in appreciating their children's products and are audiences while children present their accomplishments (KC-52, 53, 54, 56, 58, & 59). This is a higher-quality way of conducting family participation, rather than repeatedly training children for performances at parties.

## **Summary**

A great deal of research indicates a significant correlation between program quality and outcomes for children (Cryer, 1999; Peisner-Feinberg et al., 2001; Wishard et al., 2003). Higher process quality, provided to all children, enhances gains in development of skills and abilities that are associated with success in school and later life in society.

The characteristics of quality childcare programs are lower group size and staff-child ratios, teacher retention, higher staff qualifications and staff wages, more teaching experience, good quality health/safety and physical settings, regular

administration/evaluation, regulation of provisions for developmentally appropriate activities and care routines, and attempts to qualify the quality of interactions among staff, children and parents (Cryer, 1999; Rao et al., 2003). The features of a good quality program connect and interact with each other. An interdependent relationship exists in childcare among nursery school directors, teachers, parents, and children. The three systems models can be tools that help to understand some sets of organizational phenomena. Each of them interprets one kind of phenomenon in the practical operation of nursery schools. These phenomena certainly explain the relationship among directors, teachers, parents and communities. The directors and teachers are the key to providing high-quality early childhood programs and exerting positive effects on children (Decker & Decker, 2001; Howe & Jacobs, 1995). Parents and children are the people who use the early childhood programs, and they can be other supervisors to influence the program quality. Therefore, providing good working conditions to retain experienced staff, planning parent education, and creating a two-way communication channel with parents, are the bases on which to build a high-quality nursery school.

The local assessment instrument can be a yardstick for nursery schools, and it includes improving the school's instructional capacity, improving the quality of teaching, curriculum, and the climate for learning (Sergiovanni, 2002). Regular nursery school assessment not only ensures that nursery schools maintain the registered criteria, but also provide nursery schools with an operating standard. The NAEYC assessment instrument and ECERS are the two global program assessment instruments widely used in early childhood research and in practical application. An investigation into these assessment

instruments can ascertain the general criteria for quality childcare and any weaknesses of the Kaohsiung City assessment instrument.

Freud has referred to young children's struggle between the pleasure principle and the reality principle. While in early childhood they experience an incompatibility with the later acquired experience (Vygotsky, 1997). Making use of children's love of play is an effective pedagogy in delivering knowledge and developing social relationships with children. Social interaction can be a good strategy for children to use in constructing their cognitive and emotional developments, and can reduce the conflict between egocentricity and external reality. The program can offer appropriate scaffolding and support to children and families if they comprehend children's cognitive development. Early childhood education/care theories provide reference to the professionals in this field and its practitioners, while the experts regulate the early childhood assessment instrument and evaluate program quality. In addition, an effective nursery school assessment instrument ensures that children have good quality learning environments, and mandates that schools follow suit in using the different approaches to provide the best learning approach. Nursery schools adopt approaches to provide high-quality childcare for children and their families. The directors and teachers need to make full use of each approach and correct their inherent disadvantages. In doing so, the assessment instrument will be brought into full play in the nursery schools.

A well-designed assessment tool can be easily communicated to policy makers, professionals in this field, nursery school directors, teachers, and parents. If all these audiences speak the language used in the assessment instrument, they are in a better position to collaborate in guaranteeing program quality.



## **Chapter 3**

### **METHODOLOGY**

#### **Population and Sample**

While children are the direct beneficiaries of early childhood education/care, other constituencies contribute to successful programs: Teachers have the primary responsibility and school directors provide supervision and direct support. Parents participate in the process through reinforcing in-school activities, expressing their perceptions of needed activities, and providing insight into individual child requirements. The children themselves are also a significant element in early childhood education/care by virtue of their cooperation, attention, and response. To achieve the purpose of this study, the opinions of 39 directors and 39 teachers in nursery schools in Kaohsiung City, Taiwan were the source for data.

The 39 directors and 39 teachers operated or taught in nursery schools in Kaohsiung City, which is divided into eleven government administrative districts that contained 164 registered nursery schools. Selection of samples was based upon the percentage of nursery schools in each government administrative district. Therefore, the government administrative district with a higher number of nursery schools had more nursery schools selected for the study. All samples were from the 164 registered nursery schools in Kaohsiung City.

In 2002, the Social Affairs Bureau of Kaohsiung City Government conducted a nursery school assessment and announced eighty-six to be “excellent” or “good” nursery schools having a total score of over ninety and over eighty respectively. Total score calculation came from assessment scores of the school’s Administrative Management, Early Children/Care, and Health/Safety (see Appendix D). The Kaohsiung City assessment instrument included two sections: self-evaluation and academic authority evaluation. A mandate required all Kaohsiung City nursery schools to participate in this program of evaluation. Since this study’s mission was to investigate the directors’ and teachers’ perceptions of the assessment instrument, all participants were familiar with this assessment instrument, and had experience being assessed in the 2002 Kaohsiung City Nursery School Assessment. Logically, the participants had experience with “criterion sampling” (Creswell, 1998).

Using proportional allocation, stratified random sampling of the eleven government administrative districts calculated the number of sample schools for each administrative district. The 20-nursery schools were chosen from the nursery schools with excellent/good scores, while another 19 sample schools represented schools that did not have excellent/good scores, for a total of 39 schools (see Appendix E).

To increase the validity of this study, all of the teachers who answered the questionnaire had to have at least four years of teaching experience. In addition, Taiwan nursery school regulations state that the director must have two years of experience in a teaching position. Therefore, all participants had experience in teaching, which related to early childhood education/care.

### **Design of the Study**

This study comprised five steps. The first step used the literature review to identify features of high-quality early childhood education/care assessment and current issues in the early childhood education/care field. This step also included one main research question and seven relevant secondary questions, and a questionnaire requiring 106 responses.

The second step was the validity test. This test involved one director and one teacher. Their answers and responses provided a basis for revision of the questionnaire and helped make sure every question was clear to any respondent. The third step was selection of the 39 sample schools and included directors and teachers from Kaohsiung City's 164 nursery schools. Distribution of the survey instrument to the two groups of participants followed (Salant & Dillman, 1994).

The fourth step was analysis which utilized techniques of descriptive statistics for all survey data. Descriptive statistics were used, generally, to understand the opinions distributed over the participant practitioners. Chi-square, Point-biserial correlations, and Pearson correlations were used to investigate the similar and different perspectives of directors and teachers in early childhood education/care. These techniques analyzed the relationship between respondents' personal characteristics and the answer to items on the questionnaire. The data analysis especially considered the respondents' attitudes with regard to critical issues such, as professional capabilities, curriculum design, regular documentation, family services, and teaching Chinese phonetic signs & writing in nursery schools.

The final step involved interpreting the findings and translating them into narrative form, and formulating proposed suggestions and implications according to the findings. The study also sought to provide advice about further research topics for people who had an interest in this field.

## **Instrumentation**

### **Development**

A developed survey instrument collected data pertaining to the objectives of the study. For research, developed survey questions were compared to the questions of the Kaohsiung City early childhood education/care assessment instrument which is a nursery school assessment standard from the Children's Bureau Ministry of the Interior R.O.C. This existing assessment is the national guideline in Taiwan, and is revised by 15 academic authorities from four universities and one high school<sup>1</sup>.

Suggestions for improving this study's survey came from a review panel in the validity test. The survey instrument was revised according to their suggestions and then duplicated. The survey instrument had three parts and comprised 106 questions. Some questions requested personal information, and whether agreement existed with each item

---

<sup>1</sup> The four universities and one high school are Shu-Te University, National Pingtung University of Science and Technology, Chengshiu University of Science and Technology, and Mei Ho Institute of Technology, and San Mi Vocational High School.

on the Kaohsiung City early childhood education/care assessment instrument with regard to participants' practical experience (see Appendix F).

Part One of the questionnaire elicited background data about survey respondents and their schools. The questions provided the following information about respondents' age, working position, highest education level, educational training, years of teaching experience, and the school size, including the number of teachers and children.

Part Two of the questionnaire utilized the Kaohsiung City ECE/Care assessment instrument to survey the directors and teachers about their agreement with each item in the established assessing standard. The Kaohsiung City ECE/Care assessment instrument contains 59 items, which include the following topics: (1) environmental plan and safe management, (2) professional capability and service quality, (3) curricula preparation (4) documenting and counseling, and (5) family and community services. The Kaohsiung City nursery school assessment instrument is a revision of the Children's Bureau Ministry of the Interior assessment, and is the national standard in Taiwan.

In order to obtain clearer answers, some items in two or three sub-questions: (initial questions 4, 9, 11, 12, and 23) were converted to multiple-choice format. For understanding the contrasting attitudes in this research reflected the difference between the bases of the governmental evaluation standard (formally important) and what directors and teachers actually think about their schools' situations (informally important). Another 54 questions comprised two sections of opinions which were both formally and informally important responses. "Formally important" referred to rules and structures established and in place; "informally important" referred to arrangements and understanding that emerged from caregivers interactions and individual needs. Responses

were coded in a dichotomous fashion, with the scale based on “agree” and “disagree.”

Besides, the total fifty-nine questions (5+54) also had blank areas underneath for respondents to state differing opinions on each item. Part Two involved questions designed to answer research questions one to five (see Appendix F).

Part Three, integrated into Part Two of the questionnaire had to do with current practical issues in early childhood education/care, such as regular documentation, teaching Chinese phonetic signs and writing, and family services. The answers to a total of 36 questions were Likert-scale, multiple-choice, and open-ended. All 36 questions also had blank areas underneath to allow respondents to state whether or not they had opinions on each item. Part three involved questions designed to answer research questions six and seven (see Appendix F).

## **Validity**

Content validity refers to the adequacy with which questions concerning the realm of early childhood education relate to practical operations in nursery schools. The Kaohsiung City early childhood education/care assessment instrument has become the nursery school accreditation standard for the Children’s Bureau Ministry of the Interior, which is the national guideline in Taiwan. Significantly, eight years of academic teaching and practical directorship in Taiwan has provided valuable, integrated experiences for conducting and revising the questionnaire.

Content validity can also refer to the fact that all of the participants had early childhood education training and were presently in practitioner positions (Behling &

Law, 2000). Since all directors have had teaching positions for at least two years and teachers have had at least four years of teaching experience, the sample eliminated teachers who were less well trained. Experientially, unqualified participants would not accurately reflect concerns for early childhood education/care.

In addition, a review panel helped assess content validity and provided comments regarding the interpretation of the survey's items. One director and one teacher participated in the review process to determine the amount of time needed to complete one survey and provided a critical evaluation of whether or not each question would be clear to the prospective respondents. The questionnaire was revised according to their suggestions.

### **Data Collection Procedures**

In-depth, survey data, collected via a questionnaire, asked the participants to express their opinions about practical early childhood education/care. First, a phone call to each participant explained the purpose of the study and the requirements of participants, including the status of the participant and the need for articulate responses to each question. After obtaining approval, an appointment was scheduled to deliver the survey in person.

At the time of delivering the survey, participants received an explanation of the objectives of the study, the content and procedures of the questionnaire, and that all information, individually provided, would remain confidential. Neither the nursery school

nor the individual respondents would be identified in the study results, and the data would be presented as group summary data in the thesis.

Cover letters and informed consent forms were also attached in front of questionnaire to explain the study (see Appendix G & H). The date for survey return was one week after delivery. The participants also had the researcher's phone number in case further questions arose. A follow-up phone-call reminder helped prompt participants who had not returned the survey.

### **Data Analysis**

The study involved a survey of 78 nursery schools directors and teachers from Kaohsiung City. Its intent was to describe the practical situation in nursery schools as participants reflect on the standardized, government sanctioned early childhood education/care assessment instrument. Descriptive statistics, Paired samples *t*-test, Chi-square, Point-biserial, and Pearson correlation calculations were obtained using Statistical Package for the Social Sciences (SPSS, Release 13.0, 2004) available at the Center for Academic Computing, The Pennsylvania State University.

Calculations included frequencies, percentages, measures of central tendency (mean) and variability percentages, and standard deviation for interval data. For nominal variables, the study used frequencies and percentage. Depending on the distribution of responses, paired samples *t*-test would be needed for calculation if a difference arose between what the governmental standards for evaluation of nursery schools and what directors and teachers actually think. Chi-square (cross-tabs procedure in SPSS), Point-



biserial, and Pearson correlation calculation determined the presence of association and relationship between the respondent's personal information and answers to the items on the survey. A detailed analysis plan appears in Appendix I (Muijs, 2004; Huck, 2004).

## **Chapter 4**

### **RESULTS**

As stated in Chapter 1, this study examines, in detail, nursery school directors' and teachers' attitudes towards the use of an early childhood education/care (ECE/C) assessment instrument conducted in Kaohsiung City, Taiwan. This chapter is organized following the seven research questions posed in Chapter 1.

Section One summarizes the demographic description of participants. Then, Section Two summarizes the mandatory assessment criteria analyses, and examines the participants experience in using the Kaohsiung City nursery school assessment instrument. The data analyses focus is on the relation between the 59 criteria of the mandatory assessment instrument, which is Part II of the Questionnaire and personal characteristics. The data also examines the relationship/difference between "formally important," which refers to the governmental evaluation standard for nursery schools, and "informally important," which is what directors and teachers actually think about their schools' situations. The results are grouped according to corresponding the Research Questions One to Five and are posed as follows:

1. How do the nursery school directors and teachers view academic authorities' design of assessment instruments as tools for developing professional early childhood education/care?

2. How do the nursery school directors and teachers make decisions about developing self-designed activities and purchasing packaged instructional materials?
3. What are the views of nursery school directors and teachers about regularly documenting early childhood education/care?
4. What is the feasibility of parent education plans and family services?
5. What are the views of nursery school directors and teachers about not teaching Chinese phonetic signs (Pin-In) and writing in nursery schools?

Section Three reports the convergence and divergence of attitudes with regard to professional capabilities, curriculum design, documentation, family services, and teaching writing & Chinese phonetic signs in a nursery school assessment instrument. The data analyses present the relationship between personal characteristics and these critical issues which are asked in Part III of the Questionnaire. The results correspond to the Research Questions Six and Seven and pose following:

6. What are the convergent and divergent views of nursery school directors and teachers regarding the existing governmental assessment instrument of early childhood education/care?
7. To what extent do practitioners indicate disagreement with the items on the governmental assessment instrument?

### **Demographic Description of the Participants**

Part I of the Questionnaire (see Appendix F) obtained an understanding of the nursery school directors' and teachers' backgrounds. The personal information appears in Tables 1 to 4. In Table 1, regarding the highest level of education, 56.4% of respondents had high school or associate college degrees and 43.6% of respondents had bachelors or masters degrees. According to the report of the 2002 Kaohsiung City Nursery Schools Assessment (see Appendix D), 38 out of 78 respondents' schools in this study needed greater governmental supervision, 40 out of 78 respondents' schools had evaluations of "good" (see Table 2). As for the school size, 49% of respondents' schools had fewer than 50 children enrolled.

Table 1: Personal Information of Directors and Teachers (n = 78)

Variable		Frequency	Percent	Cumulative Percent	Mean	Std. Deviation
Working Position	Director	39	50.0	50.0	1.50	.50
	Teacher	39	50.0	100.0		
	Total	78	100.0			
Age	21-30yrs	18	23.1	23.1	37.94	8.36
	31-40yrs	31	39.7	62.8		
	41-50yrs	25	32.1	94.9		
	51-60yrs	4	5.1	100.0		
	Total	78	100.0			
Years of Being a Teacher	1-10yrs	59	75.6	75.6	7.96	5.59
	11-20yrs	15	19.2	94.9		
	21-30yrs	4	5.1	100.0		
	Total	78	100.0			
Highest Education Completed	High school	16	20.5	20.5	2.29	.87
	Associate college	28	35.9	56.4		
	Bachelor	29	37.2	93.6		
	Master	5	6.4	100.0		
	Total	78	100.0			
Academic Area	ECE/care	48	61.5	61.5	1.90	1.47
	ECE	16	20.5	82.1		
	Elementary education	1	1.3	83.3		
	Other	13	16.7	100.0		
	Total	78	100.0			

*\*Note.* ECE/Care is early childhood education/care. ECE is early childhood education.

Table 2: School Information for Directors and Teachers (n = 78)

Variable		Frequency	Percent	Cumulative Percent	Mean	Std. Deviation
Assessment Scores of School	Need improvement schools	8	10.3	10.3	2.54	.85
	Need supervision schools	30	38.5	48.7		
	Good schools	30	38.5	87.2		
	Excellent schools	10	12.8	100.0		
	Total	78	100.0			
Number of Children in School	1-50 children	38	48.7	48.7	82.42	65.06
	51-100 children	18	23.1	71.8		
	101-150 children	11	14.1	85.9		
	151-200 children	5	6.4	92.3		
	201-250 children	4	5.1	97.4		
	251-300 children	2	2.6	100.0		
	Total	78	100.0			
Number of Teachers in School	1-10 teachers	63	80.8	80.8	7.51	6.62
	11-20 teachers	9	11.5	92.3		
	21-30 teachers	5	6.4	98.7		
	31-40 teachers	1	1.3	100.0		
	Total	78	100.0			
* <i>Note.</i> The assessment scores of participant schools are recorded from the 2002 Kaohsiung City nursery schools assessment report.						

Table 3 and Table 4 summarize the frequency and the percentage of five early childhood education/care approaches adopted by the schools. As expected, the thematic-unit approach (71.8%) was the most common adopted approach in nursery schools. In addition, approximately 20% of participants' schools adopted multiple ECE/C approaches.

Table 3: Instructional Approaches Used in Respondent's Schools (n = 78)

Approach	Use Status	Frequency	Percent	Cumulative Percent	Rank Order
Thematic-unit Approach	Not-adopted	22	28.2	28.2	1
	Adopt	56	71.8	100.0	
Learning Center Approach	Not-adopted	70	89.7	89.7	3
	Adopt	8	10.3	100.0	
Project Approach	Not-adopted	75	96.2	96.2	5
	Adopt	3	3.8	100.0	
High/scope Approach	Not-adopted	76	97.4	97.4	6
	Adopt	2	2.6	100.0	
Montessori Approach	Not-adopted	55	70.5	70.5	2
	Adopt	23	29.5	100.0	
Other	Not-adopted	74	94.9	94.9	4
	Adopt	4	5.1	100.0	

\*Note. Rank order is based on average percentage of schools adopting the approach.

Table 4: Number of Instructional Approaches Adopted in Respondent's School (n = 78)

Approach	Frequency	Percent	Cumulative Percent
One approach	62	79.5	79.5
Thematic-unit & Learning	3	3.8	83.3
Thematic-unit & Montessori	7	9.0	92.3
Learning & Montessori	1	1.3	93.6
Learning & Others	1	1.3	94.9
Project & Montessori	2	2.6	97.4
Thematic-unit & Learning & Project	1	1.3	98.7
Thematic-unit & Montessori & Others	1	1.3	100.0
Total	78	100.0	

### **Mandatory Assessment Criteria Analyses**

This section presents the results for Research Questions One to Five to gain an understanding of caregivers' attitudes toward professional capabilities, curriculum design, documenting, parental service, and teaching Chinese phonetic signs & writing. The design of Part II of the Questionnaire (see Appendix F) corresponded to the Kaohsiung City nursery school assessment instrument. Analyses of responses from questionnaire items in Part II contained 59 mandatory assessment criteria (see Appendix F). Both the relationship/difference between "formally important," which is the governmental evaluation standards for nursery schools, and "informally important," which is what directors and teachers actually think about their schools' situations, appear in this section. The results are grouped according to the relevant research question.

#### **Research Question 1: How do the nursery school directors and teachers view academic authorities' design of assessment instruments as a tool for developing professional early childhood education/care?**

The mandatory assessment instrument evaluating caregivers' professional capabilities and service quality was in questionnaire items, Part II, Questions 15 to 22. The participants responded to these criteria according to, "formally important" and "informally important." The survey response scale choices of "agree" and "disagree" allowed a dichotomous scoring of items. For the items that were judged to be conceptually similar, calculation of the coefficient alpha for these 16 questions assessed the internal consistency (reliability) of the professional capabilities and service quality.



Reliability analysis was computed with Cronbach's alpha examines reliability and internal consistency; Cronbach's alpha can be computed for several dependent variables and establish the overall correlation in similar topics. Cronbach alpha values of 0.7 or greater are usually considered to offer reasonable reliability for research purposes (Cronbach, 1990; Muijs, 2004; Sax, 1997). The coefficient alpha of 0.701 suggested that these 26 questions were internally consistent.

A paired samples *t*-test between two dependent variables determined if a relationship/difference existed between formally important and informally important responses. Table 5 indicates a statistically significant difference ( $t = 3.994$ ,  $p < .001$ ) between what the nursery schools will be evaluated on and what directors and teachers actually think regarding professional capabilities and service quality. The respondents agreed that the nursery schools will be evaluated on these professional capabilities and service quality criteria, but simultaneously they tended to agreed, at a lower level, regarding what directors and teachers actually think about implementation in practice.

Table 5: Paired Samples *t*-test for Professional Capability and Service Quality (n = 78)

Professional Capability	Paired Differences					t	df	Sig. (2-tailed)
	Mean Difference	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Part II 15-22 Professional capabilities and service quality by formally important and informally important	.603	1.332	.151	.302	.903	3.994	77	.000

*Note.* "Formally important," which is the governmental evaluation standard for nursery schools, and "informally important," which is what directors and teachers actually think about their schools' situation.

Part II 15-22 of the Questionnaire are computed from II15.a, II16.c, II17.1, II18.a, II18.b, II19.a, II19.b, II20, II21.a, II21.b, II22.a, II22.b, and II22.c.

Total Cronbach's Alpha is 0.701.

Table 6 shows the descriptive statistic of each criterion item in professional capabilities and service quality. First of all, over 98% of respondents in this study believed that the nursery school will be evaluated on these criteria, but they had different opinions when applying these criteria in their schools. Seven out of 78 respondents disagreed that curriculum has to be discussed among teachers. All respondents agreed that nursery schools will be evaluated on teachers need to attend in-service training, but six of them found difficulty if required in their schools. Comparatively, only one teacher (1.3%) did not agree that nursery schools will be evaluated on planning curriculum

flexibility according to individual need; while thirteen respondents (16.7%) disagreed with the need to apply this requirement in their own schools. The results in Table 7 show further findings of these 12 respondents who agreed that nursery schools will be evaluated on curriculum according to individual need, but did not agreed that this should apply to their schools.

Table 6: Frequency and Percentage of Agreement Regarding the Professional Capabilities and the Service Quality (n = 78)

Professional Capabilities		Formally Important		Informally Important	
		Frequency	Percent	Frequency	Percent
II15a. Staff show professional capability	Disagree	0	0	0	0
	Agree	78	100.0	78	100.0
II15b. Staff's dress will not interrupt their work with children	Disagree	1	1.3	0	0
	Agree	77	98.7	78	100.0
II16a. Teachers positively interact with children	Disagree	1	1.3	0	0
	Agree	77	98.7	78	100.0
II16b. Teachers frequently interact with children	Disagree	1	1.3	1	1.3
	Agree	77	98.7	77	98.7
II16c. Teachers respect children	Disagree	0	0	1	1.3
	Agree	78	100.0	77	98.7
II17. Teachers use active body motions	Disagree	0	0	1	1.3
	Agree	78	100.0	77	98.7
II18a. Teachers pay attention to each child's emotion	Disagree	0	0	3	3.8
	Agree	78	100.0	75	96.2
II18b. Teachers give children support and encouragement	Disagree	0	0	2	2.6
	Agree	78	100.0	76	97.4
II19a. Curriculum is flexible planned according to individual need	Disagree	1	1.3	13	16.7
	Agree	77	98.7	65	83.3
II19b. Curriculum has been discussed among teachers	Disagree	1	1.3	7	9.0
	Agree	77	98.7	71	91.0
II20. Teachers flexibly adjust the content of activities	Disagree	0	0	2	2.6
	Agree	78	100.0	76	97.4
II21a. Teachers prepare teaching resources before class	Disagree	0	0	2	2.6
	Agree	78	100.0	76	97.4
II21b. Teachers make full use of teaching resources	Disagree	0	0	3	3.8
	Agree	78	100.0	75	96.2
II22a. Teachers learn actively	Disagree	0	0	5	6.4
	Agree	78	100.0	73	93.6
II22b. Teachers self-reflect on professional capability	Disagree	0	0	4	5.1
	Agree	78	100.0	74	94.9
II22c. Teachers attend in-service training	Disagree	0	0	6	7.7
	Agree	78	100.0	72	92.3

*Note.* Response scale: disagree = 0, agree = 1

Table 7 presents the working positions (director or teacher) of twelve participants who agreed that the nursery school will be evaluated on planning curriculum flexibly according to individual student need, but disagreed if this criterion was applied to them in practice. The result shows that twice as many teachers changed their opinions than did directors. They had difficulty in planning curriculum flexibly according to an individual child's need in their classrooms.

Table 7: Crosstabulation of Planning Curriculum According to Individual Need by Working Position (n = 12)

Variable	Director	Teacher	Total
Agree, formally important, that curriculum is planned flexibly according to individual need but disagree, informally important, that curriculum is planned flexibly according to individual need (FILTER)	4	8	12

**Research Question 2: How do the nursery school directors and teachers make decisions about developing self-designed activities and purchasing packaged instructional materials?**

Curriculum is a critical learning resource for children. Nursery school teachers and directors usually adopt curriculum of either their own designs or by packaged instructional materials. Questionnaire items in Part II 24b and 24c requested information about using self-designed activities or packaged instructional materials. Table 8 summarizes the directors' and teachers' responses for these two criteria.

Just nine out of 78 respondents (11.5%) disagreed that using self-designed activities are appropriate for children (Formally Important), but more than three times

that many, 28, (35.9%) actually thought that using self-designed activities is not appropriate for children in respondents' situations (informally important). About 64% of participants agreed regarding the item evaluating their schools as to use of self-designed activities for children. Sixty-seven percent of directors and teachers recognized difficulty in not using packaged instructional materials in their classrooms.

Table 8: Frequency and Percentage of Agreement Regarding the Use of Self-designed Activities and Packaged Instructional Materials (n = 78)

Variable		Formally Important		Informally Important	
		Frequency	Percent	Frequency	Percent
Using self-designed activities are appropriate for children	Disagree	9	11.5	28	35.9
	Agree	68	88.5	50	64.1
Not adopting activities from packaged instructional materials	Disagree	32	41.0	52	66.7
	Agree	46	59.0	26	33.3

Table 9 presents the frequency and the percentage of responses for attitudes concerning adopting activities. Among seventy-eight participants, more than half (59%) agreed that nursery schools will be formally evaluated on not using packaged instructional materials; in contrast about one third of participants (33%) agreed with not using packaged instructional materials in practice. Twenty respondents (25.6%) agreed that nursery schools will be formally evaluated on not using packaged instructional materials, but they had difficulty avoiding use of packaged instructional materials in their

classrooms as supplemental references. Further findings regarding these twenty respondents appear in Table 10.

Table 9: Crosstabulation Between Formally Important and Informally Important by Not Adopting Activities from Packaged Instructional Materials (n = 78)

Variable			Informally important for not adopting activities from packaged instructional materials		Total
			Disagree	Agree	
Formally important for not adopting activities from packaged instructional materials	Disagree	Count	32	0	32
		% of Total	41.0%	.0%	41.0%
	Agree	Count	20	26	46
		% of Total	25.6%	33.3%	59.0%
	Total	Count	52	26	78
		% of Total	66.7%	33.3%	100.0%

The results in Table 9 identify that twenty respondents (25.6%) agreed that nursery schools will be formally evaluated on not using packaged instructional materials, but disagreed that this applies to their schools. According to their personal information, these twenty respondents' working positions were eight directors and twelve teachers. In addition, eleven of them had high school or associate college degrees, and nine of them had bachelor or master degrees (see Table 10).

Table 10: Frequency for Working Position, Highest Education and Not Using Packaged Instructional Materials (n = 78)

Variable	Working Position		Highest Education	
	Director	Teacher	HS/Assoc	BS/MS
Agree formally important for not adopting activities from packaged instructional materials but disagree informally important for not adopting activities from packaged instructional materials (FILTER)	8	12	11	9
Total	20		20	

A Chi-square determined if a relationship/difference existed between working position and the attitudes toward adopting curriculum by using either self-designed activities or packaged instructional materials. Chi-square was used to determine the statistically significant level, and the *Phi* coefficient was used to determine the strength of the relationship. Results in Table 11 indicate a statistically significant relationship at the .05 level between working positions and the attitudes toward using self-designed activities as being appropriate for children in practice. An approximate ratio of half of directors (20:19) agreed or disagreed that nursery schools will be evaluated on using self-designed activities for children. But teachers who agreed that using self-designed activities for children, were three times greater in number than teachers who disagreed (30:9) on this issue. Clearly, the findings indicate that the working position has an influence on making the decision to use a self-designed curriculum. Teachers are more likely than directors to agree with designing their own activities for their work in classrooms.



Table 11: Chi-square and *Phi* Correlation Between Working Position and Adopting ECE/C Activities by Formally Important and Informally Important (n = 78)

ECE/C Activities	Director		Teacher		<i>Phi</i>
	Disagree	Agree	Disagree	Agree	
II24b.1. Formally important, for self-designed activities appropriate for children	7	32	2	37	.201
II24b.2. Informally important, for self-designed activities are appropriate for children	19	20	9	30	.267*
II24c.1. Formally important, for not adopting activities from packaged instructional materials	18	21	14	25	.104
II24c.1. Informally important, for not adopting activities from packaged instructional materials	26	13	26	13	.000
* Correlation is significant at the 0.05 level (2-tailed) as determined by the Chi-square statistic.					

**Research Question 3: What are the views of nursery school directors and teachers about documenting early childhood education/care regularly?**

Documentation not only supports teachers' reflections on their daily work, but also contributes to directors' abilities to supervise the entire school. Also, through reading documentation, the assessors understand whether each school reaches assessment criteria. Especially for some assessment criteria, documentation is the only way to present the current situation, such as individual student cases, professional capabilities, and the relationship between school and family. Nevertheless, consideration must be given to whether or not all documentation is necessary.

The Kaohsiung City Nursery School Assessment requires presenting documentation which includes class diaries, special children's cases, parents' contact books, child's development and learning records (see Questionnaire Part II 31a, 36, 37a, 38, & 40).

In terms of documentation, the results from the data indicate that all the directors and teachers (100%) not only accepted that nursery schools will be evaluated on parents' contact books, but also thought teachers should regularly write parents' contact books (see Table 12). In addition, 75 out of 78 participants (96.2%) assented that nursery schools will be evaluated on regular descriptions of special children's cases. However when asked if they would write regular descriptions of special children's cases in practice, 18 (23.1%) of them declined to agree to this requirement.

Table 12: Frequency and Percentage of Agreement Regarding Documenting (n = 78)

Variable		Formally Important		Informally Important	
		Frequency	Percent	Frequency	Percent
II31a. Regularly documenting a ECE/C diary	Disagree	0	0	3	3.8
	Agree	78	100.0	75	96.2
II36. Regular descriptions of special children's cases	Disagree	3	3.8	18	23.1
	Agree	75	96.2	60	76.9
II37a. Regularly writing in the parents' contact books	Disagree	0	0	0	0
	Agree	78	100.0	78	100.0
II38. Documenting children's cognitive, social emotional and physical development	Disagree	2	2.6	13	16.7
	Agree	76	97.4	65	83.3
II40 Documenting children's learning assessment records	Disagree	1	1.3	5	6.4
	Agree	77	98.7	73	93.6

Table 12, data indicates that “regular descriptions of special children’s cases” had the highest number of disagreeing responses. In order to obtain additional information regarding this statement, a Chi-square test was used to determine the existence of a relationship/difference between the participants’ highest education and their attitudes toward regular descriptions of special children’s cases. The results in Table 13 show that a negative relationship ( $\phi = -.228$  &  $\phi = -.316$ ) existed between the highest education of participants and their attitudes to regular descriptions of special children’s cases. Within the BS/MS group, 38.2% of respondents disagreed that teachers have to keep regular descriptions of special children’s cases. Within the HS/Assoc group, only 11.4% of respondents informally disagreed that teachers have to keep regular descriptions of special children’s cases. In other words, a total of eighteen respondents did not think that they should be evaluated on regular descriptions of special children’s cases; thirteen of them had BS/MS degrees and just five of them had HS/Assoc degrees. Clearly, the findings indicate that higher education has a negative influence on teachers’ attitudes toward the importance of describing special children’s cases. The respondents who have higher educational levels are more opposed to documenting regular descriptions of special children’s cases than are respondents with lower educational levels.

Table 13: Crosstabulation Between Highest Education and Regular Descriptions of Special Children's Cases (n = 78)

Variable			HS/Assoc	BS/MS	Total
Formally important, for regular descriptions of special children's cases	Disagree	Count	0	3	3
		% within formally important for regular descriptions of special children's cases	.0%	100.0%	100.0%
		% within HS/Assoc BS/MS	.0%	8.8%	3.8%
		% of Total	.0%	3.8%	3.8%
	Agree	Count	44	31	75
		% within formally important for regular descriptions of special children's cases	58.7%	41.3%	100.0%
		% within HS/Assoc BS/MS	100.0%	91.2%	96.2%
		% of Total	56.4%	39.7%	96.2%
	Total	Count	44	34	78
		% within formally important for regular descriptions of special children's cases	56.4%	43.6%	100.0%
		% within HS/Assoc BS/MS	100.0%	100.0%	100.0%
		% of Total	56.4%	43.6%	100.0%

*Phi Coefficient* = -.228, *p* = .044

Informally important, for regular descriptions of special children's cases	Disagree	Count	5	13	18
		% within informally important for regular descriptions of special children's cases	27.8%	72.2%	100.0%
		% within HS/Assoc BS/MS	11.4%	38.2%	23.1%
		% of Total	6.4%	16.7%	23.1%
	Agree	Count	39	21	60
		% within informally important for regular descriptions of special children's cases	65.0%	35.0%	100.0%
		% within HS/Assoc BS/MS	88.6%	61.8%	76.9%
		% of Total	50.0%	26.9%	76.9%
	Total	Count	44	34	78
		% within informally important for regular descriptions of special children's cases	56.4%	43.6%	100.0%
		% within HS/Assoc BS/MS	100.0%	100.0%	100.0%
		% of Total	56.4%	43.6%	100.0%

*Phi Coefficient* = -.316, *p* = .005

Table 14 shows whether or not the nursery school document parents' contact books and children's development and assessment records, regularly. All nursery schools (100%) required parents' contact books. The results also show 84.6% of participants documented children's development and assessment records regularly.

Table 14: Frequency and Percentage of Agreement Regarding Documenting Parents' Contact Books, Children's Development, and Assessment Records (n = 78)

Variable		Frequency	Percent	Cumulative Percent
Whether to provide parents' contact books	Yes	78	100	100
	No	0	0.0	100.0
Whether to document children's development and assessment records regularly	Yes	66	84.6	84.6
	No	12	15.4	100.0

*Note.* Six directors and six teachers respond that no documentation occurs for children's development and assessment records in their school.

The results of these responses regarding the reasons for writing documentation are shown in Table 15. When asked for the value of documenting parents' contact books and children's development and assessment records, improving teaching quality was the major reason. Obviously, directors and teachers have similar opinions that documenting is an important technique of teaching. Among the directors and teachers who did not document children's development and assessment records, seven of them indicated that the major reason for not documentation was to conform with their own teaching experiences.

Table 15: Frequency and Percentage of Agreement with the Reasons for Documenting Parents' Contact Books, and Children's Development and Assessment Records

The Reasons of Documenting Parents' Contact Books (n = 78)			Rank Order
	Frequency	Percent	
To meet parents' expectations	35	44.9	2
To conform with school principles	28	35.9	3
To conform with own teaching experience	19	24.4	4
To improve the teaching quality	52	66.7	1
To conform with criteria of school assessment	10	12.8	5
Other	4	5.1	6
The Reasons of Documenting Children's Development and Assessment Records(n = 66)			
To meet parents' expectations	14	21.2	4
To conform with school principles	24	36.4	2
To conform with own teaching experience	18	27.3	3
To improve the teaching quality	52	78.8	1
To conform with criteria of school assessment	9	13.6	5
Other	3	4.5	6
The Reasons of Not Documenting Children's Development and Assessment Records (n = 12)			
To meet parents' expectations	0	0.0	--
To conform with school principles	2	16.7	3
To conform with own teaching experience	7	58.3	1
To improve the teaching quality	3	25.0	2
To improve the working quality of teacher	3	25.0	2
To reduce the teacher turn-over rate	3	25.0	2
Other	2	16.7	3

\*Note. Rank order is based on average percentage of participants' responses.

Table 16 and Table 17 present the directors' and teachers' responses regarding how often and when they make notes in parents' contact books and children's development and assessment records. The results in Table 16 show that 33.3% of respondents write in parents' contact books every day. Among the 66 respondents who

made notes in children's development and assessment records, 72% of them document children's development and assessment records at least once per month. In addition, during children's nap and after dismissal were the major times for teachers to document parents' contact books, children's development and assessment records.

Table 16: Frequency and Percentage of Agreement with How Often the Directors and Teachers Document Parents' Contact Books, Children's Development and, Assessment Records

How often to send parents' contact books home? (n = 78)	Frequency	Percent	Cumulative Percent	Rank Order
Every day	26	33.3	33.3	2
Every week	45	57.7	91.0	1
Every two weeks	6	7.7	98.7	3
Every month	0	0	98.7	5
Every semester	0	0	98.7	5
Irregular period	1	1.3	100.0	4
Other	0	0	100.0	5
Total	78	100.0		

How often to take notes about the children's development & assessment records? (n = 66)	Frequency	Percent	Cumulative Percent	Rank Order
Every day	8	12.1	12.1	4
Every week	16	24.2	36.4	2
Every two weeks	5	7.6	43.9	6
Every month	19	28.8	72.7	1
Every semester	7	10.6	83.3	5
Irregular period	9	13.6	97.0	3
Other	2	3.0	100.0	7
Total	66	100.0		

\*Note. Rank order is based on average percentage of participants' response.

Table 17: Frequency and Percentage of Agreement with When Directors and Teachers Document Parents' Contact Books, Children's Development and Assessment Records

When do you write in parents' contact books? (n = 78)	Frequency	Percent	Rank Order
During whole (small) group time	2	2.6	4
During free play in the learning center	5	6.4	3
During outside play time	0	0.0	6
During children's nap time	57	73.1	1
After dismissal	41	52.6	2
During in-service day	1	1.3	5
Other	2	2.6	4
<hr/>			
When do you take notes about the children's development & assessment records? (n = 66)			
During whole (small) group time	2	3.0	4
During free play in the learning center	16	24.2	3
During outside play time	1	1.5	5
During children's nap time	30	45.5	2
After dismissal	41	62.1	1
During in-service day	2	3.0	4
Other	2	3.0	4

*\*Note.* Rank order is based on average percentage of adopted level of response.

Table 18 shows the descriptive statistics of three groups regarding the time teachers spend in writing in one parent's book. Among 44 of respondents who wrote parent's contact books every week, they spend nine minutes, on average, writing in one parent's contact book. Nonetheless, 26 respondents spend seven minutes, on average, writing in one parent's contact book every day.



Table 18: Descriptive Statistic of Time Spend Writing in One Parent's Contact Book (n = 74)

Writing Parents' Contact Books	Frequency	Missing	Mean	Std. Deviation	Minimum	Maximum
Every day	26	0	7.62	8.080	1 min.	40 min.
Every week	44	1	9.14	7.306	1 min.	30 min.
Every two weeks	4	2	5.00	1.414	3 min.	6 min.

Table 19 shows the time teachers spend varied from one to 40 minutes writing in one parent's contact book. The #3, #5 and #41 respondents were directors and either left blank or made note of not writing in parents contact books. The findings reveal a negative relationship, significant at the .05 level, between the years in a teacher position ( $r = -.229$ ) and the times caregivers spend with their parent's contact books. Compared to the respondents who have more teaching experience as a teacher, the respondents who have less teaching experience as a teacher are more likely to spend more time writing in one parent's contact book.

Table 19: Person Product-Moment Correlation Between Years of Being a Teacher and Time Spend Writing in One Parent's Contact Book (n = 78)

Variable	N	Minimum	Maximum	Mean	Std. Deviation	PPMr
Years of being a teacher	78	1 min.	30 min.	7.96	5.589	
The time teachers spend writing in one parent's contact book	75	1 min.	40 min.	8.40	7.372	-.229*
Missing value	3					

\* Correlation is significant at the .05 level (2-tailed).

\*Note. Missing value for persons #3, #5 & #41 were directors.

#### Research Question 4: What is the feasibility of parent education plans and family services?

Questions 48 to 59 in Part II of the Questionnaire involved the criteria for evaluating the quality of family and community service in nursery schools. The participants responded to these criteria according to the governmental evaluation standard for nursery schools and what directors and teachers actually think. For the items that were judged to be conceptually similar, the Cronbach's alpha for family services is 0.846. This means that family service patterns in the Questionnaire can be considered to be reliable (internal consistency) (Muijs, 2004).

A paired samples *t*-test, between two dependent variables was used to determine if a relationship/difference existed between the governmental evaluation standard for nursery schools and what directors and teachers actually think regarding family and community service in the Kaohsiung City assessment instrument (see Table 20). A

significant positive difference ( $t = 8.276$ ,  $p < .001$ ) existed between formally important and informally important responses regarding family service. The respondents agreed that nursery schools will be formally evaluated on these criteria, but simultaneously they tended to agreed, at a lower level, regarding what directors and teachers actually think about implementation in practice.

Table 20: Paired Samples  $t$ -test for Family and Community Service ( $n = 78$ )

Variable	Paired Differences					t	df	Sig. (2-tailed)
	Mean Difference	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Part II 48-59 Family and community service by formally important and informally important	2.462	2.627	.297	1.869	3.054	8.276	77	.000

*Note.* "Formally important," which is the governmental evaluation standard for nursery schools, and "informally important," which is what directors and teachers actually think about their schools' situation.

Part II 48-59 of Questionnaire are computed from II48.a, II48.b, II48.c, II49, II50, II51, II52, II53.a, II53.b, II54.a, II54.b, II55, II56, II57.a, II57.b, II58.a, II58.b, and II59. Total Cronbach's Alpha is 0.846.

Table 21 presents descriptive statistics regarding participants' attitudes toward family and community service. The results show 76.9% of directors and teachers

consented that nursery schools need to be formally evaluated on their regular visits to families; however, only 44.9% of respondents approved of informal evaluation of this criterion. Besides, 73.1% of respondents agreed that establishing a parent organization is important; in contrast, just 39.7% of caregivers thought establishing a parent organization in their schools is possible. Specifically, when asked to identify what kind of family services their schools provide, no one circled or listed parent organizations (Part III Q.33). As one director stated:

[If a nursery school establishes a parent organization], too many people are involved and there will be many judgments, it would interfere with the process of school business.

In response to this statement, another teacher also pointed out:

[If the school establishes a parent organization], it may produce some problems when the parents' opinions differ from that of the schools'.

Table 21: Frequency and Percentage of Agreement Regarding Family and Community Service (n =78)

Variable		Formally Important		Informally Important	
		Frequency	Percent	Frequency	Percent
II48a. Teachers visit families regularly at home	Disagree	18	23.1	43	55.1
	Agree	60	76.9	35	44.9
II48b. Teachers call families regularly	Disagree	1	1.3	4	5.1
	Agree	77	98.7	74	94.9
II48c. Teachers record dates and details about the home visits or phone call	Disagree	4	1.3	6	7.7
	Agree	74	98.7	72	92.3
II49. Parental education plans are provided	Disagree	0	1.3	8	10.3
	Agree	78	98.7	70	89.7
II50. Provide parental education information	Disagree	1	1.3	12	15.4
	Agree	77	98.7	66	84.6
II51. Organize parental conferences	Disagree	3	3.8	18	23.1
	Agree	75	96.2	60	76.9
II52. Organize social events with families	Disagree	0	0	5	6.4
	Agree	78	100.0	73	93.6
II53a. Encourage parents' involvement in ECE/Care activities	Disagree	4	5.1	9	11.5
	Agree	74	94.9	69	88.5
II53b. Invite parents to be volunteers	Disagree	4	5.1	19	24.4
	Agree	74	94.9	59	75.6
II54a. Organize parent observations every semester	Disagree	3	3.8	11	14.4
	Agree	75	96.2	67	85.9
II54b. Parental observation are welcomed all the time	Disagree	17	21.8	31	39.7
	Agree	61	78.2	47	60.3
II55. Establish a parent organization	Disagree	21	26.9	47	60.3
	Agree	57	73.1	31	39.7
II56. Conduct parental growth activities	Disagree	6	7.7	29	37.2
	Agree	72	92.3	49	62.8
II57a. Provide parents with consulting service	Disagree	2	2.6	4	5.1
	Agree	76	97.4	74	94.9
II57b. Particular schedules or telephone line for parents' consultation	Disagree	5	6.4	21	26.9
	Agree	73	93.6	57	73.1
II58a. Records show teachers are familiar with child's family	Disagree	2	2.6	6	7.7
	Agree	76	97.4	72	92.3
II58b. Teachers regularly contact parents	Disagree	0	0	4	5.1
	Agree	78	100.0	74	94.9
II59. Integrate community, parent, and government resources	Disagree	1	1.3	7	9.0
	Agree	77	98.7	71	91.0

The data in Table 22 present the frequency and Chi-square and *Phi* correlation of attitudes regarding family services. The results indicate *Phi* values of less than 0.1 ( $p>0.05$ ) for relationships between the working position (director or teacher) and family services. In other words, directors and teachers all hold similar opinions that regularly visiting families is needed and parent organizations should be established. Besides, compared to 79.5% of directors who agreed that nursery schools will be formally evaluated on teachers visiting families regularly, just 43.6% of directors agreed that their schools should be evaluated on teachers visiting families regularly. In addition, 77% of directors agreed that nursery schools will be formally evaluated on establishing a parent organization, but just 36% of directors approved of their schools being evaluated on this criterion.

Table 22: Chi-square Statistics and *Phi* Correlations for Family Services by Working Position (n =78)

Variable			Director	Teacher	Total	<i>Phi</i>
Formally important, for teachers' visiting families regularly at homes	Disagree	Count	8	10	18	-.061
		% within working position	20.5%	25.6%	23.1%	
	Agree	Count	31	29	60	
		% within working position	79.5%	74.4%	76.9%	
	Total	Count	39	39	78	
		% of Total	50.0%	50.0%	100.0%	
Informally important, for teachers' visiting families regularly at homes	Disagree	Count	22	21	43	.026
		% within working position	56.4%	53.8%	55.1%	
	Agree	Count	17	18	35	
		% within working position	43.6%	46.2%	44.9%	
	Total	Count	39	39	78	
		% of Total	50.0%	50.0%	100.0%	
Formally important, for schools encouraging and establishing parent organizations	Disagree	Count	9	12	21	-.087
		% within working position	23.1%	30.8%	26.9%	
	Agree	Count	30	27	57	
		% within working position	76.9%	69.2%	73.1%	
	Total	Count	39	39	78	
		% of Total	50.0%	50.0%	100.0%	
Informally important, for schools encouraging and establishing parent organizations	Disagree	Count	25	22	47	.079
		% within working position	64.1%	56.4%	60.3%	
	Agree	Count	14	17	31	
		% within working position	35.9%	43.6%	39.7%	
	Total	Count	39	39	78	
		% of Total	50.0%	50.0%	100.0%	

Note. All *Phi* values (p>0.05)

The data in Table 23 indicate that a total of 26 respondents agreed that nursery schools will be formally evaluated on establishing a parent organization, but disagreed that this applies to their schools. The results show that 16 of them were directors and 10 of them were teachers in this group. Regarding the highest education, 13 respondents with HS/Assoc degrees and 13 respondents with BS/MS degrees have similar opinion that nursery schools will be formally evaluated on establishing a parent organization, but that so doing would not be practical.

Table 23: Crosstabulation of Parent Organizations by Working Position and Highest Education (n = 26)

Variable		Director	Teacher	Total
Agree, formally important, for establishing parent organizations but disagree, informally important, for establishing parent organizations (FILTER)	Count	16	10	26
	% within agree formally important but disagree informally important (FILTER)	61.5%	38.5%	100.0%

Variable		HS/Assoc	BS/MS	Total
Agree, formally important, for establishing parent organizations but disagree, informally important, for establishing parent organizations (FILTER)	Count	13	13	26
	% within agree formally important & disagree informally important (FILTER)	50.0%	50.0%	100.0%

The data in Table 24 indicate that a total of 23 respondents agreed that nursery schools will be formally evaluated on establishing parents' reading meetings and parental efficiency groups, but did not agree that these criteria apply to their schools. The results



show approximately equal numbers of responding directors (12) and teachers (11) among those 23 participants. Besides, regarding the highest education, approximately equal numbers of respondents having HS/Assoc degrees (12) and BS/MS (11) degrees had similar opinions.

Table 24: Crosstabulation of Parental Growth Activities by Working Position and Highest Education (n = 23)

Variable		Director	Teacher	Total
Agree formally important that parental growth activities are conducted regularly but disagree informally important of parental growth activities are conducted regularly (FILTER)	Count	12	11	23
	% within agree-formally important but disagree informally important (FILTER)	52.2%	47.8%	100.0%

Variable		HS/Assoc	BS/MS	Total
Agree formally important that parental growth activities are conducted regularly but disagree informally important of parental growth activities are conducted regularly (FILTER)	Count	12	11	23
	% within agree-formally important but disagree informally important (FILTER)	52.2%	47.8%	100.0%

A point-biserial correlation determined if a relationship existed between the years of being a teacher and attitudes toward family and community service in the assessment instrument. Results in Table 25 reveal that a negative relationship existed, significant at the .05 level, between the years of being a teacher and whether the nursery school will be formally evaluated on having a particular schedule or telephone line for parents' consultations ( $r_{pt\ bis} = -.266$ ). Results show the respondents who have less teaching

experience are more likely than the respondents who have longer teaching experience to consent to support establishing a particular schedule for parents' consultations.

Table 25: Point biserial Between Years of Being a Teacher and Formally Important for Family and Community Service (n = 78)

Variable	<i>r</i> pt bis	Sig. (2-tailed)
Years of being a teacher	1	--
II48a. Teachers visit families regularly at home.	.128	.265
II48b. Teachers call families regularly.	.122	.286
II48c. Teachers record details about home visits or phone calls.	-.054	.639
II49. Parental education plans are provided.	.(a)	--
II50. Regularly provide parental education information.	.081	.479
II51. Regularly organize parental education conferences.	-.193	.090
II52. Regularly organize social events with families.	.(a)	--
II53a. Parents are encouraged to become involved in ECE/C activities.	.019	.867
II53b. Parents are invited to be volunteers.	-.106	.354
II54a. Parent observations are organized every semester.	-.085	.457
II54b. Parents are welcome to observe the program all the time.	-.026	.821
II55. Schools encourage and establish parent organizations.	-.067	.562
II56. Parental growth activities are conducted regularly.	.111	.335
II57a. Consulting service is provided to parents.	-.176	.122
II57b. Particular schedule or telephone line exists for parents' consultation.	-.266*	.019
II58a. The records show that teachers are familiar with each child's family.	.028	.807
II58b. Teachers regularly interact and have contact with parents	.(a)	--
II59. Staff integrate community resources, parent resources, and government resources.	-.001	.995

\* Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Table 26 presents the relationship between the years of being a teacher and presence family services. Point-biserial correlation shows a negative relationship,

significant at the .01 level, between the years of a respondent being a teacher and providing consulting services to parents in practice ( $r_{pt\ bis} = -.295$ ). Clearly, the finding indicates that the years of being a teacher has a negative correlation with agreeing to provide consulting services to parents. Results show the respondents who have less teaching experience are more likely than the respondents who have longer teaching experience to consent the schools providing consulting services to parents.

Table 26: Point-biserial Correlation Between Years of Being a Teacher and Informally Important for Family and Community Service (n = 78)

Variable	$r_{pt\ bis}$	Sig. (2-tailed)
Years of being a teacher	1	--
II48a. Teachers visit families regularly at home.	.011	.925
II48b. Teachers call families regularly.	.030	.796
II48c. Teachers record details about home visits or phone calls.	.033	.777
II49. Parental education plans are provided.	.013	.911
II50. Regularly provide parental education information.	-.099	.389
II51. Regularly organize parental education conferences.	.089	.437
II52. Regularly organize social events with families.	.036	.755
II53a. Parents are encouraged to become involved in ECE/C activities.	-.096	.401
II53b. Parents are invited to be volunteers.	.098	.392
II54a. Parent observations are organized every semester.	-.129	.261
II54b. Parents are welcome to observe the programs all the time.	.060	.599
II55. Schools encourage and establish parent organizations.	-.056	.628
II56. Parental growth activities are conducted regularly.	.167	.145
II57a. Consulting service is provided to parents.	-.295**	.009
II57b. Particular schedule or telephone line exists for parents' consultation.	.142	.216
II58a. The records show that teachers are familiar with each child's family.	.067	.558
II58b. Teachers regularly interact and have contact with parents.	.187	.101
II59. Staff integrate community resources, parent resources, and government resources.	-.131	.251

\*\* Correlation is significant at the 0.01 level (2-tailed).

Point-biserial correlations shown in the Table 27 examine the relationship between the number of children in schools and perceptions regarding whether nursery schools will be formally evaluated as to family and community service. The findings reveal negative relationships, significant at the .01 and .05 levels. One significant relationship is between the number of children in respondents' schools and providing consulting service to parents ( $r_{pt\ bis} = -.295$ ); another significant relationship is between the number of children in schools and establishing parent organizations ( $r_{pt\ bis} = -.240$ ). Clearly, the number of children in a school has a negative relation on whether or not to provide consulting services to parents. Results show that the respondents who have fewer children in their schools are more likely than the respondents who have more children in schools to consent that nursery schools will be formally evaluated on providing consulting services to parents and establishing parent organizations.

Table 27: Point-biserial Correlation Between Number of Children in Schools and Formally Important for Family and Community Service (n = 78)

Variable	<i>r</i> pt bis	Sig. (2-tailed)
The number of children in respondent's school	1	--
II48a. Teachers visit families regularly at home.	-.095	.407
II48b. Teachers call families regularly.	.108	.345
II48c. Teachers record details about home visits or phone calls.	.025	.829
II49. Parental education plans are provided.	.(a)	--
II50. Regularly provide parental education information.	-.031	.788
II51. Regularly organize parental education conferences.	-.005	.966
II52. Regularly organize social events with families.	.(a)	--
II53a. Parents are encouraged to become involved in ECE/C activities.	-.155	.176
II53b. Parents are invited to be volunteers.	.162	.158
II54a. Parent observations are organized every semester.	-.010	.931
II54b. Parents are welcome to observe the programs all the time.	-.073	.523
II55. Schools encourage and establish parent organizations.	-.240*	.035
II56. Parental growth activities are conducted regularly.	-.036	.754
II57a. Consulting service is provided to parents.	-.295**	.009
II57b. Particular schedule or telephone line exists for parents' consultation.	-.077	.504
II58a. The records show that teachers are familiar with each child's family.	-.019	.869
II58b. Teachers regularly interact and have contact with parents.	.(a)	--
II59. Staff integrate community resources, parent resources, and government resources.	.001	.995

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Table 28 and Table 29 present the relationship between the number of teachers in schools and family services. Point-biserial correlation in Table 28 shows negative relationships, significant at the .05 level, between the number of teachers in respondents' schools and that nursery schools will be formally evaluated on providing consulting services to parents (*r* pt bis = -.283). As a result, respondents from schools which have

fewer teachers are more likely than the respondents from schools which have more teachers to believe that nursery schools will be formally evaluated on providing consulting services to parents.

Table 28: Point-biserial Correlation Between Number of Teachers in Schools and Formally Important for Family and Community Service (n =78)

Variable	<i>r</i> pt bis	Sig. (2-tailed)
The number of teachers in respondent's school	1	--
II48a. Teachers visit families regularly at home.	-.087	.450
II48b. Teachers call families regularly.	.078	.496
II48c. Teachers record details about home visits or phone calls.	.036	.756
II49. Parental education plans are provided.	.(a)	--
II50. Regularly provide parental education information.	-.026	.823
II51. Regularly organize parental education conferences.	.016	.892
II52. Regularly organize social events with families.	.(a)	--
II53a. Parents are encouraged to become involved in ECE/C activities.	-.194	.089
II53b. Parents are invited to be volunteers.	.168	.141
II54a. Parent observations are organized every semester.	.005	.962
II54b. Parents are welcome to observe the programs all the time.	-.025	.828
II55. Schools encourage and establish parent organizations.	-.216	.057
II56. Parental growth activities are conducted regularly.	.015	.895
II57a. Consulting service is provided to parents	-.283*	.012
II57b. Particular schedule or telephone line exists for parents' consultation.	-.083	.470
II58a. The records show that teachers are familiar with each child's family.	-.135	.238
II58b. Teachers regularly interact and have contact with parents.	.(a)	--
II59. Staff integrate community resources, parent resources, and government resources.	.026	.820

\* Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Table 29 indicates a negative relationship, significant at the .05 level, between the number of teachers in respondents' schools and the school records show that teachers are familiar with each child's family ( $r_{pt\ bis} = -.270$ ). The results show that the respondents from schools which have fewer teachers are more likely than the respondents from schools which have more teachers to agree that records show teachers are familiar with each child's family as is necessary in practice.

Table 29: Point-biserial Correlation Between Number of Teachers in School and Informally Important for Family and Community Service (n = 78)

Variable	$r_{pt\ bis}$	Sig. (2-tailed)
The number of teachers in respondent's school	1	--
II48a. Teachers visit families regularly at home.	-.168	.141
II48b. Teachers call families regularly.	-.159	.166
II48c. Teachers record details about home visits or phone calls.	.030	.796
II49. Parental education plans are provided.	.001	.995
II50. Regularly provide parental education information.	.082	.476
II51. Regularly organize parental education conferences.	.089	.439
II52. Regularly organize social events with families.	.012	.914
II53a. Parents are encouraged to become involved in ECE/C activities.	-.100	.384
II53b. Parents are invited to be volunteers.	-.001	.992
II54a. Parent observations are organized every semester.	.015	.898
II54b. Parents are welcome to observe the programs all the time.	.119	.299
II55. Schools encourage and establish parent organizations.	-.167	.144
II56. Parental growth activities are conducted regularly.	-.013	.913
II57a. Consulting service is provided to parents.	-.123	.282
II57b. Particular schedule or telephone line exists for parents' consultation.	.021	.856
II58a. The records show that teachers are familiar with each child's family.	-.270*	.017
II58b. Teachers regularly interact and have contact with parents.	.106	.353
II59. Staff integrate community resources, parent resources, and government resources.	.018	.878

\* Correlation is significant at the 0.05 level (2-tailed).

**Research Question 5: What are the views of nursery school directors and teachers about not teaching Chinese phonetic signs (Pin-In) and writing in nursery schools?**

Table 30 and Table 31 show the descriptive statistics of criteria in regard to teaching writing and Chinese phonetic signs in nursery schools. Among 78 participants, 55.1% of them believed that nursery schools will be formally evaluated on not teaching writing to young children; conversely, just 17.9% of them accepted evaluation of their schools on not teaching writing (see Table 30).

Table 30: Crosstabulation of Not Teaching Writing (n = 78)

Variable			Informally important for not teaching writing		Total
			Disagree	Agree	
Formally important, for not teaching writing	Disagree	Count	31	4	35
		% of Total	39.7%	5.1%	44.9%
	Agree	Count	33	10	43
		% of Total	42.3%	12.8%	55.1%
	Total	Count	64	14	78
		% of Total	82.1%	17.9%	100.0%

The results in Table 31 indicate that more than half of participants (51.3%) disagreed that nursery schools will be formally evaluated on not teaching Chinese phonetic signs. Furthermore, 92.3% of respondents stated that they had difficulty not teaching Chinese phonetic signs to their children.



Table 31: Crosstabulation of Not Teaching Chinese Phonetic Signs (n = 78)

Variable			Informally important for not teaching Chinese phonetic signs		Total
			Disagree	Agree	
Formally important, for not teaching Chinese phonetic signs	Disagree	Count	40	3	43
		% of Total	51.3%	3.8%	55.1%
	Agree	Count	32	3	35
		% of Total	41.0%	3.8%	44.9%
	Total	Count	72	6	78
		% of Total	92.3%	7.7%	100.0%

A Chi-square test of independence determined if a statistical relationship existed between the working position (director and teacher) and their attitudes toward not teaching children Chinese phonetic signs and writing. Results in Table 32 indicate no significant correlation between the working position and caregivers' attitudes toward not teaching Chinese phonetic signs and writing.

Table 32: Chi-square Results for Not Teaching Writing and Chinese Phonetic Signs by Working Position (n = 78)

Variable			Director	Teacher	Total	<i>Phi</i>
Formally important, for not teaching writing	Disagree	Count	19	16	35	.077
		% within working position	48.7%	41.0%	44.9%	
	Agree	Count	20	23	43	
		% within working position	51.3%	59.0%	55.1%	
	Total	Count	39	39	78	
		% of Total	50.0%	50.0%	100.0%	
Informally important, for not teaching writing	Disagree	Count	32	32	64	.000
		% within working position	82.1%	82.1%	82.1%	
	Agree	Count	7	7	14	
		% within working position	9.0%	9.0%	17.9%	
	Total	Count	39	39	78	
		% of Total	50.0%	50.0%	100.0%	
Formally important, for not teaching Chinese phonetic signs	Disagree	Count	22	21	43	.026
		% within working position	56.4%	53.8%	55.1%	
	Agree	Count	17	18	35	
		% within working position	43.6%	46.2%	44.9%	
	Total	Count	39	39	78	
		% of Total	50.0%	50.0%	100.0%	
Informally important, for not teaching Chinese phonetic signs	Disagree	Count	37	35	72	.096
		% within working position	94.9%	89.7%	92.3%	
	Agree	Count	2	4	6	
		% within working position	5.1%	10.3%	7.7%	
	Total	Count	39	39	78	
		% of Total	50.0%	50.0%	100.0%	

*Note.* None of the *Phi* values are significant at the .05 alpha level.

Table 33 presents Chi-square statistical results and *Phi* correlations between the highest education and teaching language. The results indicate no differences (association) between participants' attitudes and different educational levels, except for informally important for not teaching Chinese phonetic signs. Although the strength is significant ( $\Phi = -0.254$ ), more than 20% (in fact, 50%) of the cells have expected values of less than five. This significant correlation should not be used (Huck, 2004). Therefore, this study presents Fisher's Exact Test instead. Considering the need for teaching Chinese phonetic signs in nursery schools, a statistically significant association existed between HS/Assoc degrees and not teaching Chinese phonetic signs. Six out of 44 participants with HS/Associate college degrees agreed that their schools should be informally evaluated on not teaching Chinese phonetic signs, compared with none of the 34 participants with BS/MD degrees (Fisher's Exact Test,  $p < .05$ ).

Table 33: Chi-square Results for Not Teaching Writing and Chinese Phonetic Signs by Highest Education (n = 78)

Variable			HS/Assoc	BS/MS	Total	Phi
Formally important, for not teaching writing	Disagree	Count	20	15	35	.013
		% within HS/Assoc				
	BS/MS		45.5%	44.1%	44.9%	
	Agree	Count	24	19	43	
		% within HS/Assoc				
	BS/MS		54.5%	55.9%	55.1%	
Total	Count		44	34	78	
	% of Total		56.4%	43.6%	100.0%	
Informally important, for not teaching writing	Disagree	Count	35	29	64	-.074
		% within HS/Assoc				
	BS/MS		79.5%	85.3%	82.1%	
	Agree	Count	9	5	14	
		% within HS/Assoc				
	BS/MS		20.5%	14.7%	17.9%	
Total	Count		44	34	78	
	% of Total		56.4%	43.6%	100.0%	
Formally important, for not teaching Chinese phonetic signs	Disagree	Count	21	22	43	-.169
		% within HS/Assoc				
	BS/MS		47.7%	64.7%	55.1%	
	Agree	Count	23	12	35	
		% within HS/Assoc				
	BS/MS		52.3%	35.3%	44.9%	
Total	Count		44	34	78	
	% of Total		56.4%	43.6%	100.0%	
Informally important, for not teaching Chinese phonetic signs	Disagree	Count	38	34	72	Phi = -0.254
		% within HS/Assoc				
	BS/MS		86.4%	100.0%	92.3%	Fisher's Exact Test p = .033
	Agree	Count	6	0	6	
		% within HS/Assoc				
	BS/MS		13.6%	.0%	7.7%	
Total	Count		44	34	78	
	% of Total		56.4%	43.6%	100.0%	

*Note.* Chi-square tests between the highest education and informally important for not teaching Chinese phonetic signs have 2 cells (50.0%) have expected counts less than 5. The minimum expected count is 2.62.

Table 34 presents the personal information of 33 participants who reported that they agreed that nursery schools will be formally evaluated on not teaching Chinese phonetic signs and writing to young children; however, they agreed that difficulty existed for practical application. Among these 33 participants, 14 were directors and 19 were teachers. Furthermore, 18 of them had HS/Assoc degrees and 15 of them had BS/MS degrees.

Table 34: Crosstabulation Between Working Position and Highest Education and Not Teaching Writing and Chinese Phonetic Signs in Nursery Schools (n = 32)

Variable	Working Position		Highest Education	
	Director	Teacher	HS/Assoc	BS/MS
Agree, formally important, for not teaching writing but disagree, informally important, for not teaching writing (FILTER)	14	19	18	15
Total	33		33	
Agree, formally important, for not teaching Chinese phonetic signs but disagree, informally important, for not teaching Chinese phonetic signs (FILTER)	16	16	20	12
Total	32		32	

A point-biserial correlation determined if a relationship existed between the respondents' ages and their attitudes toward not teaching writing and Chinese phonetic signs. The results in Table 35 indicate negative relationships, significant at the .05 level, between the respondents' ages and attitudes toward not teaching writing and Chinese phonetic signs. Clearly, the ages of directors and teachers have a negative influence on

whether nursery schools will be formally evaluated on not teaching writing and Chinese phonetic signs. The findings show that the younger respondents are more likely than the older respondents to consent that nursery schools will be formally evaluated for not teaching writing ( $r$  pt bis = -0.271) and Chinese phonetic signs ( $r$  pt bis = -0.269).

Table 35: Point-biserial Correlation Between Caregivers' Age and Not Teaching Writing and Chinese Phonetic Signs (n =78)

Variable		1.	2	3	4	5
1. Age	$r$ pt bis Sig. (2-tailed)	-- --				
2. Formally important, for not teaching writing	$r$ pt bis Sig. (2-tailed)	-.271* .016	-- --			
3. Informally important, for not teaching writing	$r$ pt bis Sig. (2-tailed)	-.085 .460	.153 .180	-- --		
4. Formally important, for not teaching Chinese phonetic signs	$r$ pt bis Sig. (2-tailed)	-.269* .017	.762** .000	.115 .314	-- --	
5. Informally important, for not teaching Chinese phonetic signs	$r$ pt bis Sig. (2-tailed)	-.108 .347	-.030 .796	.492** .000	.030 .796	-- --
Mean (Age)		37.94				
Standard Deviation (Age)		8.36				

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

A point-biserial correlation determined if a relationship existed between the number of children in respondents' schools and their attitudes toward teaching writing and Chinese phonetic signs. The results in Table 36 indicate a negative relationship, significant at the .05 level, between the number of children in respondents' schools and attitudes of not teaching Chinese phonetic signs. The findings show that the respondents who work in a small school are more likely than the respondents who work in a large school to consent that nursery schools will be formally evaluated for not teaching Chinese phonetic signs ( $r_{pt\ bis} = -0.236$ ).

Table 36: Pearson Correlation Between the Number of Children in a School and Not Teaching Writing and Chinese Phonetic Signs (n = 78)

Variable		1.	2.	3.	4.	5.
1. The number of children in respondent's school	<i>r</i> pt bis Sig. (2-tailed)	-- --				
2. Formally important, for not teaching writing	<i>r</i> pt bis Sig. (2-tailed)	-.045 .695	-- --			
3. Informally important, for not teaching writing	<i>r</i> pt bis Sig. (2-tailed)	-.157 .171	.153 .180	-- --		
4. Formally important, for not teaching Chinese phonetic signs	<i>r</i> pt bis Sig. (2-tailed)	-.236* .038	.762** .000	.115 .314	-- --	
5. Informally important, for not teaching Chinese phonetic signs	<i>r</i> pt bis Sig. (2-tailed)	-.061 .593	-.030 .796	.492** .000	.030 .796	-- --
Mean (Number of Children)		82.42				
Standard Deviation (Number of Children)		65.06				
* Correlation is significant at the 0.05 level (2-tailed).						
** Correlation is significant at the 0.01 level (2-tailed).						

Furthermore, Table 37 shows whether the participants' schools establish activities to teach writing and Chinese phonetic signs (see Part III Q18 & Q 20 at Appendix F). In the current situation, most of participants' schools teach writing (88.5%) and Chinese phonetic signs (97.4%) to their children.



Table 37: Frequency and Percentage of Agreement Regarding Teaching Writing and Chinese Phonetic Signs (n = 78)

Variable		Frequency	Percent	Mean	Std. Deviation
III 20. Whether to teach writing	Yes	69	88.5	1.12	.322
	No	9	11.5		
III18. Whether to teach Chinese phonetic signs	Yes	76	97.4	1.03	.159
	No	2	2.6		

When asked the reasons for their teaching writing and Chinese phonetic signs, to prepare for the transition to elementary school was the major reason (see Table 38).

Among the directors and teachers who did not teach writing and Chinese phonetic signs, all of them indicated that the only reason was to conform to children's development.

Table 38: Frequency and Percentage of Agreement Regarding the Reasons for Teaching Writing and Chinese Phonetic Signs

The Reasons of Teaching Writing (n = 69)	Frequency	Percent	Rank Order
To meet parents' expectations	48	61.5	2
To conform with children's development	14	17.9	3
To conform with my school principles	5	6.4	5
To conform with my own teaching experience	10	12.8	4
To prepare for the transition to elementary school	50	64.1	1
Other	0	0.00	6
<hr/>			
The Reasons of Teaching Chinese Phonetic Signs (n = 76)			
To meet parents' expectations	56	71.8	2
To conform with children's development	23	29.5	3
To conform with my school principles	5	6.4	5
To conform with my own teaching experience	8	10.3	4
To prepare for the transition to elementary school	59	75.6	1
Other	0	0.00	6
<hr/>			
The Reasons of Not Teaching Writing (n = 9)			
To meet parents' expectations	0	0.00	--
To conform with children's development	9	100.0	1
To conform with my school principles	0	0.00	--
To conform with my own teaching experience	0	0.00	--
To prepare for the transition to elementary school	0	0.00	--
Other	0	0.00	--
<hr/>			
The Reasons of Not Teaching Chinese Phonetic Signs (n = 2)			
To meet parents' expectations	0	0.00	--
To conform with children's development	2	100.0	1
To conform with my school principles	0	0.00	--
To conform with my own teaching experience	0	0.00	--
To prepare for the transition to elementary school	0	0.00	--
Other	0	0.00	--

*Note.* The numbers of answers are according to the Table 37.

Rank order is based on average percentage of participants' responses.

## **Convergence and Divergence**

The design of Part III of the Questionnaire (see Appendix F) corresponds to Research Questions Six and Seven designed to gain an understanding of the convergent and divergent views of nursery school directors and teachers on the governmental assessment instrument. Part III has a total of 39 questions.

### **Research Question 6: What are the convergent and divergent views of nursery school directors and teachers on the existing governmental assessment instrument of early childhood education/care?**

In order to understand the convergent and divergent views of directors and teachers, the five topics are significant criteria in early childhood education and care. These five topics are: (1) professional capabilities, (2) curriculum design, (3) documenting, (4) family services, and (5) teaching writing & Chinese phonetic signs in nursery schools.

#### ***Professional Capability***

Questions 1, 2, 3, 9, 10, and 11 in Part III of the Questionnaire investigate directors' and teachers' attitudes regarding professional capabilities. The Cronbach's alpha for these six Likert-scale questions assess the internally consistency (reliability) of the professional capability assessment instrument. The coefficient alpha of 0.848 suggests that the questions provide summated scores that are strongly, internally consistent (Muijs,

2004). The correlations between participants and their attitudes toward the professional capability assessment appear in Table 39. Pearson product-moment coefficient correlation shown in the following table calculates the description of the relationship between participants' attitudes regarding agreement with the professional capability assessment instrument and their ages, years of being a teacher, academic areas, the number of children and the number of teachers in a school. The results reveal a positive relationship, significant at .01 level, between the years of being a teacher ( $r = .437$ ) of respondents and their attitudes to the professional capability assessment. Clearly, the findings indicate that the teaching experience has a positive relationship with professional capabilities. In other words, the respondents who have more teaching experience are more likely than the respondents who have less teaching experience to consent to the requirement of professional capabilities in the Kaohsiung City assessment instrument.

Table 39: Pearson Product-moment Correlation of Attitudes Toward the Assessment Instrument of Professional Capability and Personal Characteristics (n = 78)

Variable		1.	2.	3.	4.	5.	6.
1. Professional capabilities	PPM <i>r</i>	--					
	Sig. (2-tailed)	--					
2. Age	PPM <i>r</i>	-.061	--				
	Sig. (2-tailed)	.594	--				
3. Years of being a teacher	PPM <i>r</i>	.437**	.157*	--			
	Sig. (2-tailed)	.000	.169	--			
4. Academic area	PPM <i>r</i>	-.047	.352**	-.296**	--		
	Sig. (2-tailed)	.681	.002	.009	--		
5. Number of children in school	PPM <i>r</i>	.132	.133	.154	.038	--	
	Sig. (2-tailed)	.248	.246	.177	.744	--	
6. Number of teachers in school	PPM <i>r</i>	-.048	.140	.095	.010	.906**	--
	Sig. (2-tailed)	.677	.221	.410	.934	.000	--
Mean		17.35	37.94	7.96	1.90	82.42	7.51
Std. Deviation		2.67	8.36	5.59	1.47	65.06	6.62

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

*Note.* Professional capabilities = III.1 + III.2 + III.3 + III.9 + III.10 + III.11.

Total Cronbach's Alpha is 0.848.

Academic areas are recoded 1 = early childhood education/care, 2 = early childhood education, 3 = elementary education, 4 = nursery, and 5 = other

Calculated Point-biserial correlation coefficients analyzed the presence of a relationship between attitudes of participants to the professional capability assessment

instrument and their working positions, the highest education level and school scores (see Table 40). The findings reveal a positive relationship, significant at the .05 level, between the working position of respondents ( $r_{pt\ bis} = .227$ ) and their attitudes to the professional capability assessment. In other words, the teachers are more likely than the directors to consent to the professional capability standards in the Kaohsiung City assessment instrument. To reveal the significant relationship between working position and attitudes toward professional capabilities required correlating six questions with working positions, individually as in Table 41.

Table 40: Point-biserial Correlations of Attitudes Toward the Assessment Instrument of Professional Capability on Working Position, Education and School Scores (n = 78)

Variable		1	2	3	4
1. Professional capability	<i>r</i> pt bis	--			
	Sig. (2-tailed)	--			
2. Working position	<i>r</i> pt bis	.227*	--		
	Sig. (2-tailed)	.045	--		
3. Highest education completed	<i>r</i> pt bis	-.086	-.259*	--	
	Sig. (2-tailed)	.456	.022	--	
4. School scores	<i>r</i> pt bis	.069	.000	.133	--
	Sig. (2-tailed)	.547	1.000	.247	--
Mean		17.35	1.50	1.44	1.51
Std. Deviation		2.67	.50	.50	.50

\* Correlation is significant at the 0.05 level (2-tailed).

Note. Professional capabilities = III.1 + III.2 + III.3 + III.9 + III.10 + III.11.

Total Cronbach's Alpha is 0.848.

Working Positions are recoded 0 = director, 1 = teacher.

Highest education completed is recoded 0 = HS/Assoc, 1 = BS/MS

School scores are recoded 0 = need supervision schools, 1 = good schools.

A Chi-square determined if a relationship/difference existed between working position and participants' attitudes toward professional capability items, scored in a dichotomous fashion. Table 41 presents the frequency and correlation of responses for these six questions. Overall, more than half of participants agreed that the professional capability assessment instrument assists their practical work, and the teachers had a higher agreement level than the directors. In addition, statistically significant positive relationships, at the .05 level, existed between the working position and the assessment

instrument supervising directors' and teachers' work ( $\Phi = .228$ ); between the working position and reaching the standard of assessment represents good quality ( $\Phi = .272$ ), and between working positions and improving school quality ( $\Phi = .267$ ). Besides, among 39 directors, 18 did not think that reaching the standard of the assessment represents good quality in nursery schools.

Table 41: Chi-square and  $\Phi$  Correlation Between Working Position and Professional Capability (n = 78)

Variable	Director		Teacher		$\Phi$	Sig
	Disagree	Agree	Disagree	Agree		
III1. Assessment instrument improves individual professional growth.	9	30	6	33	.098	.389
III2. Assessment instrument supervises directors' or teachers' work.	11	28	4	35	.228*	.044
III3. I have done good quality work if I reach the standard of assessment.	18	21	8	31	.272*	.016
III9. Assessment instrument builds a referral standard while I operate my school.	6	33	4	35	.077	.498
III10. Assessment instrument improves my school's quality.	11	28	3	36	.267*	.018
III11. Assessment instrument supports my school's efforts for improving staff quality and parents' education.	10	29	6	33	.127	.262

\* Correlation is significant at the 0.05 level.



Point-biserial correlations coefficient analysis revealed positive relationships, significant at the .05 and .01 levels, between the years of being a teacher and attitudes toward the professional capability assessment instrument (see Table 42). The results show that the respondents who have more teaching experience are more likely than the respondents who have less teaching experience to agree that the assessment instrument improves their school's quality ( $r_{pt\ bis} = .316$ ) and the assessment instrument improves individual professional growth ( $r_{pt\ bis} = .243$ ).

Table 42: Point-biserial Correlations Coefficient Between Years of Being a Teacher and Professional Capability (n = 78)

Variable		1	2	3	4	5	6	7
1. Years of being a teacher	<i>r</i> pt bis	--						
	Sig. (2-tailed)	--						
2. Assessment instrument improves individual professional growth.	<i>r</i> pt bis	.243*	--					
	Sig. (2-tailed)	.032	--					
3. Assessment instrument supervises directors' or teachers' work.	<i>r</i> pt bis	.026	.422**	--				
	Sig. (2-tailed)	.822	.000	--				
4. I have done good quality work if I reach the standards of assessment.	<i>r</i> pt bis	.103	.414**	.414**	--			
	Sig. (2-tailed)	.370	.000	.000	--			
5. Assessment instrument builds a referral standard while I operate my school.	<i>r</i> pt bis	.170	.105	.007	.054	--		
	Sig. (2-tailed)	.137	.361	.948	.637	--		
6. Assessment instrument improves my school's quality.	<i>r</i> pt bis	.316**	.365**	.111	.307**	.420**	--	
	Sig. (2-tailed)	.005	.001	.334	.006	.000	--	
7. Assessment instrument supports my school's efforts for improving staff quality and parents' education.	<i>r</i> pt bis	.117	.477**	.397**	.449**	.375**	.590**	--
	Sig. (2-tailed)	.309	.000	.000	.000	.001	.000	--
Mean (Years of being a teacher)		7.96						
Standard Deviation (Years of being a teacher)		5.59						

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Note. The agreement of professional capability is recoded into 2 levels- "agree" and "disagree"

*Self-Designed Activities and Packaged Instructional Materials*

First of all, the directors and teachers in this study believed that packaged instructional materials are valuable curricula in nursery schools. Indeed, the results in Table 43 show that 93.6% of participants (6.4% & 37.2% & 50%) adopted curricula using either packaged instructional materials or combining packaged instructional materials with self-designed activities. In addition, 87.2% of directors and teachers (37.2% & 50%) preferred to self-designed activities combined with packaged instructional materials.

Table 43: Frequency and Percentage Regarding the Ways of Participants Adopt ECE/C activities (n = 78)

Q III13. How to Adopt ECE/C Activities?	Frequency	Percent	Cumulative Percent
Teachers in my school design activities.	5	6.4	6.4
Teachers purchase packaged instructional materials.	5	6.4	12.8
Curricula are mostly teachers' self-design, and a few activities are combinations with packaged instructional materials.	29	37.2	50.0
Curricula are mostly purchased, package materials, and a few activities are combinations with teachers' self-designs.	39	50.0	100.0
Total	78	100.0	

Table 44 shows that although 75.6% of participants agreed that self-designed activities conform to practical operation, 57.7% of participants expressed the opinion that self-designed activities require too much time and using packaged instructional materials are more efficient. Meanwhile, 51.3% of directors and teachers stated that they would rather adopt packaged instructional materials than use self-designed activities.

Table 44: Frequency and Percentage Regarding the Self-designed Activities and the Packaged Instructional Materials (n = 78)

Variable		Frequency	Percent
III4. Self-designed activities don't conform to practical operation.	Disagree	59	75.6
	Agree	19	24.4
	Total	78	100.0
III14. Teachers would rather adopt packaged instructional materials than develop self-designed activities.	Disagree	38	48.7
	Agree	40	51.3
	Total	78	100.0
III15. Self-designed activities take too much time; packaged instructional materials save my time.	Disagree	33	42.3
	Agree	45	57.7
	Total	78	100.0
III16. Packaged instructional materials are integrated into different activities.	Disagree	12	15.4
	Agree	66	84.6
	Total	78	100.0
III17. Packaged instructional materials are easy to carry out if I follow the teaching guide.	Disagree	41	52.6
	Agree	37	47.4
	Total	78	100.0

Questions 4, 14, 15, 16, and 17 in Part III of the Questionnaire investigate directors' and teachers' attitudes to self-designed activities and packaged instructional

materials (see Appendix F). A Pearson Product-moment coefficient shown in the following table calculates the relationship between personal characteristics and attitudes of participants to these five questions regarding curriculum design (see Table 45). The findings reveal a negative relationship, significant at the .05 level, existed between the number of teachers in a school ( $r = - .261$ ) and their attitudes toward use of self-designed activities and packaged instructional materials. Results show that the respondents who work in schools which have fewer teachers are more likely than the respondents who work in schools which have more teachers to agree that packaged instructional materials are more useful than self-designed activities.

Table 45: Pearson Product-moment Coefficient of Attitudes Toward Using Self-designed Activities and Packaged Instructional Materials by Personal Characteristics (n = 78)

Variable		1	2	3	4	5	6
1. Self-designed activities and packaged instructional materials	PPM <i>r</i>	--					
	Sig. (2-tailed)	--					
2. Age	PPM <i>r</i>	-.074	--				
	Sig. (2-tailed)	.522	--				
3. Years of being a teacher	PPM <i>r</i>	.004	-.157*	--			
	Sig. (2-tailed)	.972	.169	--			
4. Academic area	PPM <i>r</i>	.140	.352**	-.296**	--		
	Sig. (2-tailed)	.220	.002	.009	--		
5. Number of children in school	PPM <i>r</i>	-.162	.133	.154	.038	--	
	Sig. (2-tailed)	.155	.246	.177	.744	--	
6. Number of teachers in school	PPM <i>r</i>	-.261*	.140	.095	.010	.906**	--
	Sig. (2-tailed)	.021	.221	.410	.934	.000	--
Mean		12.53	37.94	7.96	1.90	82.42	7.51
Std. Deviation		2.67	8.36	5.59	1.47	65.06	6.62

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

*Note.* Self-designed activities and packaged instructional materials = III.4 + III.14 + III.15 + III.16 + III.17. Total Cronbach's Alpha is 0.827.

Academic areas are recoded 1 = early childhood education/care, 2 = early childhood education, 3 = elementary education, 4 = nursery, and 5 = other

An applied point-biserial correlation determined if a relationship existed between attitudes toward self-designed activities and packaged instructional materials with two

levels of independent variables. These two levels of independent variables were directors and teachers, HS/Assoc and BS/MS, and schools needing supervision and good schools. Results in Table 46 indicate no significant association in the relation between the participants' attitudes and different working positions, educational levels, and school scores. That is, despite the existing differences between the participants, statistically they all hold similar attitudes on early childhood activities.

Table 46: Point-biserial Correlation of Attitudes Toward Using Self-designed Activities and Packaged Instructional Materials by Personal Characteristics (n = 78)

Variable		1	2	4	5
1. Self-designed activities and packaged instructional materials	<i>r</i> pt bis	--			
	Sig. (2-tailed)	--			
2. Working position	<i>r</i> pt bis	.024	--		
	Sig. (2-tailed)	.833	--		
3. Highest education completed	<i>r</i> pt bis	-.174	-.259*	--	
	Sig. (2-tailed)	.127	.022	--	
4. School scores	<i>r</i> pt bis	-.175	.000	.133	--
	Sig. (2-tailed)	.126	1.000	.247	--
Mean		12.53	1.50	1.44	1.51
Std. Deviation		2.67	.50	.50	.50

\* Correlation is significant at the 0.05 level (2-tailed).

*Note.* Self-designed activities and packaged instructional materials = III.4 + III.14 + III.15 + III.16 + III.17. Total Cronbach's Alpha is 0.827.

The school scores are recoded into need supervision schools and good schools.

In order to understand the different attitudes between directors and teachers, a Chi-square determined if a relationship existed between working positions and participants attitudes toward the ways of adopting early childhood curriculum. Results in Table 47 indicate no significant association between participants' attitudes and different working positions (director or teacher). That is, despite the existing differences between the directors and teachers, statistically they all hold similar attitudes.

From a descriptive statistic point of view, overall, compared to the directors, the teachers tended to prefer to adopt curriculum by using packaged instructional materials as opposed to self-designed activities. As one director stated:

Packaged instructional materials have many limitations, unless teachers have creative capabilities and know-how to make use of packaged instructional materials, otherwise the packaged instructional materials control the teaching and learning.

Another teacher also said:

Packaged instructional materials may have some parts too difficult for children. The content usually focuses on cognitive learning. I think self-designed curriculum is the best method to correspond to children's learning. I can modify the curriculum and bring different learning fields together. I can self-reflect while I process my own curriculum.

Whether nursery schools or teachers need to purchase packaged instructional materials for survival, one of the directors said:

Parents usually think that the self-designed curriculum doesn't have good quality. They usually couldn't trust that teachers can design curriculum. In fact, not all teachers can design their own curricula; teachers may dispute when they have different opinions. Besides, packaged instructional materials are made carefully. Using them convinces parents that we could afford high-quality curriculum.

Another teacher also said:

Most packaged instructional materials are designed or edited by early childhood education experts. It is worth while as a reference, especially for the novices in



nursery schools. Besides, teachers are not all powerful; designing our own curricula would take much time, teachers have family life, they also need time to rest and participate in professional training.

Table 47: Chi-square and *Phi* Correlation Between Working Position and ECE/C Curricula (n = 78)

Variable	Director		Teacher		<i>Phi</i>	Sig
	Disagree	Agree	Disagree	Agree		
III4. Self-designed activities don't conform to the practical operation.	27	12	32	7	-.147	.187
Mean	2.28		2.05			
Std. Deviation	.61		.72			
III14. Teachers would rather adopt packaged instructional materials than self-designed activities.	22	17	16	23	.154	.174
Mean	2.38		2.54			
Std. Deviation	.75		.76			
III15. Self-designed activities take too much time; packaged instructional materials save my time.	17	22	16	23	.026	.819
Mean	2.54		2.56			
Std. Deviation	.72		.79			
III16. Packaged instructional materials are integrated into different activities.	8	31	4	35	.142	.209
Mean	2.87		3.00			
Std. Deviation	.62		.65			
III17. Packaged instructional materials are easy to carry out if I follow the teaching guide.	22	17	19	20	.077	.496
Mean	2.38		2.44			
Std. Deviation	.59		.72			

Point-biserial correlation coefficients, shown in the following table, calculate the relationship between the number of children in school and the attitudes toward whether or not to adopt self-designed activities or packaged instructional materials (see Table 48). The findings reveal negative relationships, significant at the .05 level, between the number of children in a school and saving time with packaged instructional materials as opposed to self-designed activities ( $r_{pt\ bis} = -.288$ ); and packaged instructional materials are integrated into different activities ( $r_{pt\ bis} = -.267$ ). In other words, the respondents from schools with fewer children are more likely than the respondents from schools which have more children to agree that packaged instructional materials save teachers' time, and packaged instructional materials are integrated into different activities better than self-designed activities.

Table 48: Point-biserial Correlations of Attitudes Toward Using ECE/C Activities and Working Position (n = 78)

Variable		1	2	3	4	5	6
1. Number of children in school	<i>r</i> pt bis Sig. (2-tailed)	--					
2. Self-designed activities don't conform to the practical operation.	<i>r</i> pt bis Sig. (2-tailed)	.018 .873	--				
3. Teachers would rather adopt packaged instructional materials than self-designed activities.	<i>r</i> pt bis Sig. (2-tailed)	-.112 .330	.195 .088	--			
4. Self-designed activities take too much time; packaged instructional materials save my time.	<i>r</i> pt bis Sig. (2-tailed)	-.288* .011	.244* .031	.463** .000	--		
5. Packaged instructional materials are integrated into different activities.	<i>r</i> pt bis Sig. (2-tailed)	-.267* .018	.242* .033	.437** .000	.498** .000	--	
6. Packaged instructional materials are easy to carry out if I follow the teaching guides.	<i>r</i> pt bis Sig. (2-tailed)	.064 .575	.059 .608	.361** .001	.242* .033	.192 .093	--
Mean (Number of Children)		82.42					
Standard Deviation (Number of Children)		65.06					

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

### ***Documentation***

Questions 5, 8 and 12 in Part III of the Questionnaire investigate directors' and teachers' attitudes toward documentation. Question 5 in Part III asks whether they agree that regular documentation does not conform to practical operation within early childhood education/care. Question 8 in Part III asks whether they agree that as a teacher, they would rather spend more time with children than on regular documentation. Question 12 in Part III asks whether they agree that nursery school assessment increases extra documentation that is not necessary (see Appendix F). The Cronbach's Alpha of these three items is 0.728 and above 0.7 is usually considered to offer reasonable reliability for research purposes (Muijs, 2004).

The data in Table 49 indicate a significantly negative correlation, significant at the .05 level, between the number of teachers in a school ( $r = -0.237$ ) and participants' attitudes toward documentation. Clearly, the findings indicate that the number of teachers in a school has a negative correlation on accepting regular documentation. As a result, the respondents who work in small schools are more likely than the respondents who work in large schools to agree that regular documentation does not conform to practical operations. Teachers would rather spend more time with children than on regular documentation, and the nursery school assessment increases extra documentation that is not necessary.

Table 49: Pearson Product-moment Coefficient of Personal Characteristics and the Attitudes Toward Documentation (n = 78)

Variable		1	2	3	4	5	6
1. Documentation	PPM <i>r</i>	--					
	Sig. (2-tailed)	--					
2. Age	PPM <i>r</i>	.080	--				
	Sig. (2-tailed)	.484	--				
3. Years of being a teacher	PPM <i>r</i>	-.019	.157	--			
	Sig. (2-tailed)	.870	.169	--			
4. Academic area	PPM <i>r</i>	.156	.352**	-.296**	--		
	Sig. (2-tailed)	.172	.002	.009	--		
5. Number of children in school	PPM <i>r</i>	-.216	.133	.154	.038	--	
	Sig. (2-tailed)	.057	.246	.177	.744	--	
6. Number of teachers in school	PPM <i>r</i>	-.237*	.140	.095	.010	.906**	--
	Sig. (2-tailed)	.036	.221	.410	.934	.000	--
Mean		7.67	37.94	7.96	1.90	82.42	7.51
Std. Deviation		1.61	8.36	5.59	1.47	65.06	6.62

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

*Note.* Documentation includes (1) documentation doesn't conform to practice, (2) teachers would rather spend more time with children than on documentation, and (3) nursery school assessment increases extra documentation.

Total Cronbach's Alpha is 0.728.

Academic areas are recoded 1 = early childhood education/care, 2 = early childhood education, 3 = elementary education, 4 = nursery, and 5 = other

A point-biserial correlation determined if a relationship existed between the respondents' backgrounds and their attitudes with regard to documentation. Results in Table 50 indicate no significant relationships between participants' attitudes and different working positions, educational levels, and school scores. That is, despite the existing differences between the directors and teachers, statistically they all hold similar attitudes.

Table 50: Point-biserial Correlation of Attitudes Toward Documentation by Working Position, Highest Education and School Scores (n = 78)

Documentation		1	2	3	4
1. Documentation	<i>r</i> pt bis	--			
	Sig. (2-tailed)	--			
2. Working position	<i>r</i> pt bis	-.096	--		
	Sig. (2-tailed)	.402	--		
3. Highest education completed	<i>r</i> pt bis	.038	-.259*	--	
	Sig. (2-tailed)	.743	.022	--	
4. Schools scores	<i>r</i> pt bis	-.107	.000	.133	--
	Sig. (2-tailed)	.351	1.000	.247	--

\* Correlation is significant at the 0.05 level (2-tailed).

*Note.* Documentation = Documentation doesn't conform to practice & rather spend more time with children than on documentation & nursery school assessment increase extra documentation. Total Cronbach's Alpha is 0.728.

Working Positions are recoded 0 = director, 1 = teacher.

Highest education completed is recoded 0 = HS/Assoc, 1 = BS/MS

School scores are recoded 0 = need supervision schools, 1 = good schools.

Table 51 presents the Chi-square correlation results between the respondents' working position and their attitudes toward documentation. The results indicate no significant correlation between working position and attitudes toward documentation. Whether conforming to practical operations or not, teachers would rather spend more time with children than on regular documentation. Most teachers and directors believed that documentation is a useful technique in their work; directors and teachers can benefit greatly by documentation. As one teacher stated:

We take notes for children's documentations regularly; we would know children's learning and behavior in every development period and completely record the time, event, and the way of interaction in children's development and assessment documentation. We could also share this information with parents to help them understand their children's progress and get their cooperation.

Another director said:

Some documents indeed arouse teachers' reflection and integrate teachers' teaching attitudes, but teachers can not write too much, only record the most meaningful and necessary information or discover some problems in the school. The format must be simplified to let teachers work efficiently, but not increase their burdens.

Although both directors and teachers tended to go along with regular documentation in their practical operations, the notion of spending more time with children than on documentation was also emphasized by most caregivers. As one teacher said:

Teachers had many sundry duties. Some documentation can not help teachers to promote their professional competence or give better care to young children. Instead, it makes teachers very busy; they wouldn't have energy to take good care of children and it would reduce the teaching quality. Besides, the assessing members didn't know whether they get true information.

One director had similar opinions:

In practical operation, teachers spend their entire energy, attention, and time with children. Especially, teachers would be in stressed if children are inattentive. No one can document in this time. Teachers usually spend their after-school time

taking notes for documentation according to their memories. Therefore, the documentation maybe fake, instead, the teachers who really treat children with attention maybe ignored.

Table 51: Chi-square and *Phi* Correlation Between Working Position and Attitudes Toward Documentation (n = 78)

Variable	Director		Teacher		<i>Phi</i>	Sig
	Disagree	Agree	Disagree	Agree		
III5. Regular documentation does not conform to practical operations within early childhood education/care.	27	12	31	8	-.117	.300
Mean	2.36		2.13			
Std. Deviation	.58		.62			
III8. As a teacher, I would rather spend more time with children than on regular documentation.	9	30	9	30	.000	1.000
Mean	2.97		2.90			
Std. Deviation	.67		.75			

Table 52 presents frequency and percentage of attitudes in regard to documentation. The results show that 74.4% of respondents disagreed that regular documentation does not conform to practical operation. However, 76.9% of respondents expressed that they would rather spend more time with children than on regular documentation. The reason was that 40 out of 78 respondents (51.3%) had conflicts between regular documentation and spending time with children.



Table 52: Crosstabulation of Documentation in Classroom (n = 78)

Variable			III8 As a teacher, I would rather spend more time with children than on regular documentation.		Total
			Disagree	Agree	
III5 Regular documentation does not conform to practical operations within early childhood education/care.	Disagree	Count	18	40	58
		% of Total	23.1%	51.3%	74.4%
	Agree	Count	0	20	20
		% of Total	.0%	25.6%	25.6%
	Total	Count	18	60	78
		% of Total	23.1%	76.9%	100.0%

Among these 40 respondents, they disagreed that regular documentation does not conform to practical operation, but agreed that as a teacher they would rather spend more time with children than on regular documentation. These respondents are 18 directors and 22 teachers (see Table 53). In addition, the results in Table 53 also show that among these 40 respondents, 25 of them have high school or associate college degrees and 15 of them have bachelor's or master's degrees.

Table 53: Crosstabulation for Select Case of Documentation by Working Position and Highest Education (n = 40)

Variable		Director	Teacher	HS/Assoc	BS/MS
Disagree- Regular documentation does not conform to practical operations within ECE/C, but Agree- As a teacher, I would rather spend more time with children than on regular documentation. (FILTER)	Count	18	22	25	15
	% of Total	45.0%	55.0%	62.5%	37.5%
	Total	40		40	

### *Family Services*

Question 6 in Part III of the Questionnaire investigates directors' and teachers' attitudes toward family services. This question asks whether they agree that regular family services conform to practical operations in nursery schools. A point-biserial correlation determined if a relationship existed between personal characteristics and attitudes toward family services in nursery schools. Results in Table 54 indicate no relationships between participants' attitudes and different ages, academic areas, teaching experiences, the number of children in a school, and the number of teachers in a school. That is, despite the existing differences between the directors and teachers, statistically they all hold similar attitudes.

Table 54: Point-biserial Correlation Between Personal Characteristics and the Attitudes Toward Family Services (n = 78)

Variable		1	2	3	4	5	6
1. Regular family services and parent education do not conform to practical operation.	<i>r</i> pt bis	--					
	Sig. (2-tailed)	--					
2. Age	<i>r</i> pt bis	.078	--				
	Sig. (2-tailed)	.497	--				
3. Years of being a teacher	<i>r</i> pt bis	.077	.157	--			
	Sig. (2-tailed)	.500	.169	--			
4. Academic area	<i>r</i> pt bis	-.063	.352**	-.296**	--		
	Sig. (2-tailed)	.583	.002	.009	--		
5. Number of children in school	<i>r</i> pt bis	-.220	.133	-.154	.038	--	
	Sig. (2-tailed)	.053	.246	.177	.744	--	
6. Number of teachers in school	<i>r</i> pt bis	-.213	.140	.095	.010	.906**	--
	Sig. (2-tailed)	.062	.221	.410	.934	.000	--
Mean		1.17	37.94	7.96	1.90	82.42	7.51
Std. Deviation		.38	8.36	5.59	1.47	65.06	6.62

\*\* Correlation is significant at the 0.01 level (2-tailed).

*Note.* Academic areas are recoded 1 = early childhood education, 2 = early childhood education/care, 3 = elementary education, and 4 = other.

Academic areas are recoded 1 = early childhood education/care, 2 = early childhood education, 3 = elementary education, 4 = nursery, and 5 = other

A Chi-square determined if a relationship existed between directors' and teachers' backgrounds and their attitudes toward family services and whether to conform to

practical operation. Results in Table 55 indicate no significant relationship existed between participants' attitudes and different working positions, educational levels, and school scores. That is, despite the existing differences between the directors and teachers, statistically they all hold similar attitudes toward family services. In addition, when asked to specify whether family services can conform to practical operation in the nursery school (Part III Q.6). One of the teachers stated:

[If nursery schools run family services regularly], parents can share different skills or talents with each other. It will enrich their relationships and the schools' curriculum. However, the family activities should be no more than 2 activities per semester.

In response to this statement, another teacher also pointed out that:

[If nursery schools run family services regularly], parents could understand school's teaching attitudes and how these attitudes are carried out. Teachers and parents exchange opinions with each other, take good advice and make improvement.

However, some caregivers stated that family activities didn't work in their schools, one director stressed that:

School education should not only focus on children but also the need to educate parents. However, parents who are in my school do not have interest to participate in family activities. The director and teachers can communicate with them, individually, according to actual situation of each child and family.

Table 55: Chi-square and *Phi* Correlation Results Between Personal Characteristics and the Attitudes Toward Family Service (n = 78)

Variable		Regular family service and parent education do not conform to practical operation				<i>Phi</i>
		Disagree	Percent	Agree	Percent	
Working position	Director	31	79.5	8	20.5	-.103
	Teacher	34	87.2	5	12.8	
	Total	65	83.3	13	16.7	
Highest education completed	HS/Assoc	37	84.1	7	15.9	.023
	BS/MS	28	82.4	6	17.6	
	Total	65	83.3	13	16.7	
School scores	Need supervision school	29	76.3	9	23.7	-.184
	Good school	36	90.9	4	10.0	
	Total	65	83.3	13	16.7	

*Note.* Phi values were not statistically significant at the .05 alpha level.

### ***Chinese Phonetic Signs & Writing***

Questions 18 and 20 in Part III of the Questionnaire ask directors and teachers whether or not they teach Chinese phonetic signs and writing in their schools. Table 56 presents the Chi-square correlation between Chinese phonetic signs, writing and working position. The results show no differences (association) between the working positions and whether to teach Chinese phonetic signs and writing in nursery schools. That is, directors and teachers have similar opinions about Chinese phonetic signs and writing being an important curriculum in nursery schools.

Table 56: Chi-square and *Phi* Correlation Between Chinese Phonetic Signs, Writing and Working Position (n = 78)

Variable	Director		Teacher		<i>Phi</i>	Sig
	Yes	No	Yes	No		
Whether to teach Chinese phonetic signs	38	1	38	1	.000	1.000
Whether to teach writing	33	6	36	3	-.120	.288

Children's need to learn Chinese phonetic signs and writing is due to parents' expectations, transition to elementary schools, or children's developmental purposes; however, this curriculum is necessary for the survival of nursery schools. As one teacher said:

Not teaching of Chinese phonetic signs and writing does not conform to the current situation in nursery schools. Parents want their children to learn Chinese phonetic signs and writing. The students' enrollment would drop down if nursery schools do not match up with parents' needs. The nursery schools would be removed from society if the schools don't teach Chinese phonetic signs and writing to children. My school does not want to be eliminated.

In response to "not teaching Chinese phonetic signs and writing", one director also pointed out:

Elementary schools arrange only ten weeks course to teach Chinese phonetic signs. Within these ten weeks, children need to completely understand how to read and write 37 Chinese phonetic signs. Children would be frustrated and be under stress if we do not advance learning skill with Chinese phonetic signs in nursery schools. The course of learning Chinese phonetic signs in the elementary school should be extended if children are not allowed to learn Chinese phonetic signs in nursery schools.

Besides, from other points of view, writing involves a thinking process, is a

language to express them and is a method of contact with others. Providing a literacy environment should be an essential criterion for high-quality nursery schools. As one of the directors stated:

During the process of children's emerging literacy, it is difficult to distinguish teaching from not teaching Chinese phonetic signs and writing. Whether we teach Chinese phonetic signs and writing, depends on the needs of children. Nursery schools should be told what reasons for not teaching Chinese phonetic signs and writing. Then they will know how to deal with not teaching Chinese phonetic signs and writing to children in nursery schools.

Another director also pointed out that:

In the second semester of kindergarten, teachers can teach writing if their children's fine motor skills develop well. Children can also learn Chinese phonetic signs through playing games.

The governmental nursery school assessment expects not teaching Chinese phonetic signs and writing to young children. However, learning Chinese phonetic signs and writing are common in nursery schools. This is due to not only children's sense of using language, but also to prepare them for the transition to elementary school.

**Research Question 7: To what extent do practitioners indicate disagreement with the items on the assessment instrument?**

Questionnaire items in Part II contained 59 criteria which were transcribed from the Kaohsiung City nursery school assessment instrument. Overall, most participants tended to accept the requirements in the assessment instrument. "Not teaching Chinese phonetic signs" and "no talent lessons" are two criteria with which more than half of caregivers experienced difficulty in reconciling nursery schools' formal evaluation standards and what directors and teachers actually think (see Table 57).

Not teaching Chinese phonetic signs has been discussed in the section devoted to Research Question Six. The talent lesson is another critical issue with which early childhood educators and parents have concern. Many practitioners stress that they teach talent lessons because of parents' expectations. As one director said:

Most of parents request talent lessons; in order to satisfy them and keep students' enrollment, we have to provide talent lessons. But the alternative way was that we did not make talent lessons a major curriculum item.

In response to this criterion, another teacher also pointed out that:

If the schools don't arrange talent lessons, children would be more exhausted, because they need to take talent lessons in the evening. Beside, most parents could not pick up children early. Children could take talent lessons while they wait to be picked up.

Many caregivers thought that talents are special; talent skills should be encouraged at a young age, as one of teachers said:

Diversified learning is very important. Everyone has his/her specialty. However, nursery school teachers do not have all power. Talent classes are handled by specialists. It could enrich children's life. Therefore, we should accept some talent classes if they could motivate children's potential. Besides, teachers work all day long, teachers could recess during talent lessons.



Table 57: Frequency and Percentage of the Most Disagreement with the Governmental Nursery School Assessment Instrument (n = 78)

Variable		Frequency	Percent	Mean	Std. Deviation
II32 b. Informally important for not teaching writing	Disagree	64	82.1	.18	.386
II 32 c. Formally important for not teaching Chinese phonetic signs	Disagree	43	55.1	.45	.501
II 32 c. Informally important for not teaching Chinese phonetic signs	Disagree	72	92.3	.08	.268
II 33 a. Formally important for prohibiting talent classes	Disagree	40	51.3	.49	.503
II 33 a. Informally important for prohibiting talent classes	Disagree	67	85.9	.14	.350
II 48 a. Informally important for teacher visiting families regularly at home	Disagree	43	55.1	.45	.501
II 55. Informally important for schools to establish parent organizations	Disagree	47	60.3	.40	.493

Question 7 in Part III of the Questionnaire inquires if the nursery school assessment instrument's requirements influence the directors' and teachers' daily routine, such as spending more time on documentation and requiring children to do particular work. Table 58 presents point-biserial correlations between school size and assessment influence on caregivers' daily routines. These correlations are negatively significant,

$r = -0.303, -0.367, \text{ and } -0.317, p < 0.01$ . Clearly, the findings indicate that the school size has a negative correlation on acceptance of the assessment instrument. The caregivers who work in small schools are more likely than the caregivers who work in large schools to express that the assessment instrument's requirements influence their daily routines.

As one director stated:

The schools would reach the standard of the assessment instrument if they have huge administrative systems, business management and an attractive appearance; in such a manner, a small nursery school with a warm and full life really brings children to investigate life; these schools may be labeled low-quality because they don't have extra staff to deal with nursery school assessment.

Table 58: Point-biserial Correlation Between School Size and Daily Routine (n = 78)

Variable		1.	2.	3.	4.
1. Assessment instrument's requirements influence my daily routine in the nursery school.	$r$ pt bis Sig. (2-tailed)	-- --			
2. Number of children in school	$r$ pt bis Sig. (2-tailed)	-.303** .007	-- --		
3. Number of teachers in school	$r$ pt bis Sig. (2-tailed)	-.367** .001	.906** .000	-- --	
4. Number of staff in school	$r$ pt bis Sig. (2-tailed)	-.317** .005	.607** .000	.764** .000	-- --
Mean		.667	82.42	7.51	2.54
Standard Deviation		.474	65.059	6.621	2.160

\*\* Correlation is significant at the 0.01 level (2-tailed).

After reviewing participants' written reflections, several significant correlations emerged between school size and assessment requirements. Of particular interest is the relationship between a school's assessment scores and the school size (see Table 59). These correlations form a statistically significant relationship, at the .01 level, between a school's assessment scores and the school size. The results show that the large nursery schools' scores are significantly better (higher) than those of smaller schools. In addition, and in relation to the results in Table 49, negative significant relationships also exist between the school size and documentation. Clearly, the findings indicate that the number of children, teachers and staff in a school, have an influence on school scores and assessment acceptance. The respondents from small schools tended to support less the importance of documentation, and they also receive poorer scores in the nursery school assessment.

Table 59: Pearson Product-moment Coefficient Between School Scores and School Size (n = 78)

Variable		1.	2.	3.	4.
1. School scores	PPMr	--			
	Sig. (2-tailed)	--			
2. Number of children in school	PPMr	.461**	--		
	Sig. (2-tailed)	.000	--		
3. Number of teachers in school	PPMr	.515**	.906**	--	
	Sig. (2-tailed)	.000	.000	--	
4. Number of staff in school	PPMr	.343**	.607**	.764**	--
	Sig. (2-tailed)	.002	.000	.000	--

\*\* Correlation is significant at the 0.01 level (2-tailed).

### Summary of the Results

Data analysis uses descriptive statistics, paired samples *t*-test, Chi-square, Point-biserial correlation, and Pearson Product-moment correlation. Section One presents demographic descriptions of participants. These preliminary results apply to further examination as to whether or not differences/relationships exist between caregivers' attitudes toward professional capabilities, curriculum design, documentation, family services, and teaching writing & Chinese phonetic signs.

Section Two presents the results which relate to Research Questions One to Five. First of all, the results show that over 83.3% of directors and teachers accepted the eight criteria as an assessment instrument of professional capabilities and service quality (see Questionnaire part II 15 to 22). More than half of directors and teachers (64.1%) support self-designed activities, and more directors and teachers (66.7%) agreed with using packaged instructional materials for their schools. Parents' contact books are part of all participants' school documentation (100%). Improving the teaching quality is the main reason for documenting parents' contact books and children's development. Point-biserial correlations establish a negative correlation between the respondents' teaching experience and providing consulting services to parents in their schools ( $r_{pt\ bis} = -.295$ ). Most respondents disagreed with not teaching Chinese phonetic signs (92.3%) and writing (82.1%) in their schools.

Section Three presents the findings as related to Research Questions Six and Seven. Teaching experience and working position have a positive correlation with professional capabilities. The number of teachers in a school has a negative correlation

with adopting self-designed activities and packaged instructional materials. The number of teachers in a school has a negative correlation with documentation. The directors and teachers all hold similar attitudes toward family services and whether to teach Chinese phonetic signs and writing. Not teaching Chinese phonetic signs and talent lessons are two criteria which obtain the highest disagreement with the Kaohsiung City nursery school assessment instrument. The numbers of children, teachers, and staff in a school have a negative relation with acceptance of the governmental assessment instrument. Furthermore, significant relationships exist between the school size and the Kaohsiung City nursery schools assessment scores.

The results presented above indicate clearly that the directors and teachers in this study experience a benefit in using the assessment instrument as a basis for their teaching. A more detailed summary and a discussion of the findings appear in the next chapter.

## **Chapter 5**

### **DISCUSSION**

As explained in Chapter 3, this study reports a survey of directors' and teachers' attitudes toward using the government sanctioned nursery school assessment instrument. As a survey, this research primarily uses a quantitative perspective, attempting to discern the value of the nursery school assessment instrument for nursery schools' directors and teachers.

This final chapter restates the research questions and the methods used in the study. The major sections of this chapter present important findings drawn from the data presented in Chapter 4, followed by discussions of the relationship between these findings and the 2002 Kaohsiung City nursery school assessment report and reflections on the limitations of this study. Finally, Chapter 5 provides a discussion of the implications for professional practice and recommendations for the further research.

#### **Statement of the Problem**

Based on the belief that all children have a right to quality care and education, the Children's Bureau Ministry of the Interior R.O.C. uses a nursery school assessment instrument to evaluate the quality of education and childcare. The local Social Affairs Bureau regularly evaluates nursery schools to ensure that the programs conform to this

standard. All nursery schools are mandated to conduct the assessment, whose outcomes become public through general announcement.

To pursue high-quality childcare, the local governments in Taiwan budgets grants and recruits academic professionals, and commits them to nursery school assessment; most of the recruited assessment committee members are authorities. Although the academic authorities' perspectives receive greater weight, far more often than those of the parents, children, and practitioners, the directors and teachers are essential to providing high-quality early childhood programs and delivery of positive effects to children (Decker & Decker, 2001; Howe & Jacobs, 1995).

According to the report of the 2002 Kaohsiung City Nursery School Assessment, the controversial issues were: (1) teaching professionals (2) adopting self-designed curricula or packaged instructional materials, (3) documentation to show teaching evidence, and (4) teaching Chinese phonetic signs, writing, and talent lessons. Understanding the attitudes of directors and teachers toward these critical issues could advance building a reliable assessment instrument, enhance communication with professionals in practice, and finally, maintain high-quality programs for children and parents.

### **Review of the Methodology**

The selected participants for this study were 39 directors and 39 teachers from the nursery schools in Kaohsiung City, which is divided into eleven government administrative districts that contain 164 registered nursery schools. Selecting the numbers

of participants occurred according to the percentage of nursery schools in each government administrative district (see Appendix D). In 2002, the Social Affairs Bureau of Kaohsiung City Government initiated a nursery school assessment, and announced that 86 excellent and good nursery schools received total scores of over ninety and over eighty respectively. The present study chose twenty good schools and nineteen need supervision schools as samples according to the outcome of the 2002 Kaohsiung City Nursery School Assessment (see Appendix E).

The survey instrument, divided into three parts, comprised 106 questions. Part I of the survey elicited background data about the surveyed schools and respondents. Part II of the survey utilized the Kaohsiung City ECE/Care assessment instrument standards to inquire of directors and teachers whether or not they found validity in each item of the national assessing standard. In order to understand any differences between the governmental evaluation standards for nursery schools and what directors and teachers actually think, this part of the survey asked 54 questions in two sections. These inquiries sought opinions which were both formally important and informally important responses. The 54 questions, scored in a dichotomous fashion and with a scale based on “agree” and “disagree.” Another six questions included five multiple-choice questions and one open-ended question.

Part III of the survey concerned current critical issues in early childhood education/care, such as professional capabilities, regular documentation, teaching of Chinese phonetic signs and writing, and family service provisions. A total of 36 questions required answers because they were Likert-scale, multiple-choice, and open-ended questions (see Appendix F). A review panel helped assess content validity and provided



comments regarding the interpretation of the survey items. In order to ensure 100% return, surveys were personally hand-delivered and retrieved.

Descriptive statistics showed frequency, percentage, mean, and standard deviation of variables. Reliability analysis employed Cronbach's alpha for computation to examine reliability and internal consistency. Computations involved several dependent variables and reveal the overall correlation for similar topics. Paired samples *t*-test calculations found the differences between the formally important and informally important responses. Chi-square, Point-biserial, and Pearson correlation calculations determined the existence of some association or relationship between the respondent's personal information and answers to the items on the survey. A detailed analysis plan appears in Appendix I (Muijs, 2004; Huck, 2004).

### **Major Findings Related to Research Question**

The findings of the survey appear in two sections. First, the findings on research questions group into six topics, and discussion is according to the results of the survey responses. The six topics are: (1) professional capabilities and service quality, (2) self-designed curriculum and packaged instructional materials, (3) documentation, (4) family service, (5) writing and Chinese phonetic signs, and (6) talent lessons. Second is a discussion of unanticipated findings regarding relationships among schools' assessment scores, the school size, and documentation. In addition, models of three systems analyze all findings.

The central focus of this study is to ascertain the nursery school directors' and teachers' perceptions regarding use of the governmental early childhood education/care assessment instrument. The relevant research questions include the following:

1. How do the nursery school directors and teachers view academic authorities' design of assessment instruments as tools for developing professional early childhood education/care?
2. How do the nursery school directors and teachers make decisions about developing self-designed activities and purchasing packaged instructional materials?
3. What are the views of nursery school directors and teachers about regularly documenting early childhood education/care?
4. What is the feasibility of parent education plans and family services?
5. What are the views of nursery school directors and teachers about not teaching Chinese phonetic signs (Pin-In) and writing in nursery schools?
6. What are the convergent and divergent views of nursery school directors and teachers regarding the existing governmental assessment instrument of early childhood education/care?
7. To what extent do practitioners indicate disagreement with the items on the governmental assessment instrument?

### **Professional Capability and Service Quality**

1. Teachers find difficulty with using flexible curriculum according to an individual child's need.

First, the results show that most of the respondents in this study believe that professional capabilities and service quality are important concepts. The caregivers have no doubts about displaying professional quality themselves. A few teachers find difficulty with using flexible curriculum according to an individual child's need. Currently, many nursery schools emphasize teacher-directed approaches and whole-group lessons because preparing a curriculum is easier or because the approaches influence children's effective learning (Golbeck, 2002). Teachers may have concern that flexible curricula could delay the process of curriculum and children's learning.

2. Curricula should be discussed among teachers.

Unlike Chang & Lee (2002), the report of the Kaohsiung City Nursery Schools Assessment showed that only 52.7% nursery schools received high scores on flexible curriculum planning as discussed among teachers, 91% of directors and teachers in this study think that curricula should be discussed among teachers (see Appendix J).

Apparently the government's assessing members had higher standards than the caregivers themselves on this issue. A co-teacher structure associates with higher quality child care and more positive teacher behaviors (Shim et al., 2004). However many classrooms have only a single teacher, so curricula may not mimic the consensus among teachers, but teachers likely consult with their colleagues from different classrooms or offices.

3. More teaching experience of caregivers coincides with greater agreement on the professional capabilities and service quality.

Given the data from the survey, clearly, teaching experience has a positive influence on professional capabilities and service quality. The possible cause for more teaching experience influencing professional capabilities in this study could be a function of job acceptance. Professional capabilities, quality service, and enthusiasm for a profession all interconnect. The caregivers who could work with children in the long term are probably those who have a high enthusiasm and acceptance of their positions. The directors and teachers who have more teaching experience are likely to use the assessment instrument as a guide to improve their school's quality and individual professional growth. Teaching is a continuous learning experience for which teachers need to expose themselves to additional training, as well as, commit themselves to professional capabilities and also, challenge service quality, which can be considered a serious personal investment (Hunt & Hunt, 2004).

4. Teachers are more likely than directors to consent to professional capabilities standards in the governmental assessment instrument.

The results of the survey show that many directors think that attaining the standards set by the assessment do not reflect good quality work. Fewer directors than teachers consider the assessment instrument as useful supervision of their work and an improvement source for their school's quality. The possible cause is teachers more closely work with children than directors do. Professional capabilities and service quality are guidelines which can urge teachers to improve teaching activities (Mangano, 1999).

Another possible cause for lower agreement rates exhibited by directors than teachers in this study could be that directors have different principles for professional capabilities and service quality. In the hierarchies of authority, most directors have their own methods for operating schools (Chien, 2001). They not only supervise teachers, but also, are responsible for administration. Students' enrollment may influence directors to identify their standards with the assessment instrument. Besides, based on parents' beliefs related to children's academic achievement (Davis-Kean, 2005), directors may prefer to satisfy parents' expectations than satisfy rubrics of assessment standards which do not meet parents' expectations.

### **Self-designed Curriculum and Packaged Instructional Materials**

1. Combining both self-designed activities and packaged instructional materials are common practices in most nursery schools.

The present study offers a clear result that self-designed activities are insufficient for the nursery schools' teachers in current situations. Most nursery schools in this study adopt packaged instructional materials combined with self-designed activities (see Table 43 in Ch 4). Even early childhood education authorities advocate that teachers plan curricula according to their observations, and track the children's interest, then adjust curriculum with respect to children's space. However, more nursery schools utilize packaged instructional materials as a main source of curriculum, and relegate self-designed activities to a minor role.

Quality programming associates with higher levels of administrative experience and effectiveness in curriculum planning (Buell & Cassidy, 2001). In fact, packaged instructional material has its own value in practice. As expected, most directors and teachers agree with adopting packaged instructional materials (see Table 8 in Ch 4). Packaged instructional materials are not only beneficial to novices but also are convenient for all teachers in practice. Packaged instructional materials might contain multiple knowledge frames and learning modes (see Table 44 in Ch 4). These materials also satisfy parents, who do not trust teachers to design good quality curricula. However, many teachers use packaged instructional materials such as textbooks. The consequence is that teachers may be directed by the programmed materials while ignoring their children's needs that the materials do not consider.

## 2. School size influences curriculum adoption.

Given the data from the survey, clearly the respondents who work in schools which have fewer teachers are more likely than the respondents who work in schools which have more teachers to agree that packaged instructional materials are more useful than self-designed activities in schools. Similarly, the results also show that the respondents from schools which have fewer children are more likely than the respondents from schools which have more children to agree that packaged instructional materials could save time and can integrate into different activities, more so than self-designed activities (see Table 48 in Ch 4). Apparently, the school size has a negative influence on the criteria for adopting curricula. One explanation that may account for the results is that

the schools with fewer teachers may be short of human resources to plan original curricula.

This finding is of considerable importance since it suggests that adopting curricula should not only include self-designed activities. Many reasons support using packaged instructional materials. A high-quality curriculum contains serious activities and multiple-knowledge. Some educational materials may be excellent resources which are available to help teachers use more complex options (Bergent, 2002). Because completing a curriculum plan takes much time and no one can guarantee the quality of self-designed activities. Directors may choose the packaged instructional materials which provide textbooks and materials to children and teaching guides to teachers. For teachers, using packaged instructional materials, may save the time used for writing curriculum plans and make available multiple resources. Directors may have basic guidelines to supervise the curriculum, and packaged instructional materials may relieve parents' worries about curricula.

## **Documentation**

### **1. Documentation is a necessary technique.**

First, the findings in Chapter 4 prompt belief that documentation is an important technique for nursery school directors and teachers (see Table 12 in Ch 4). Regarding parents' contact books, a requirement for all nursery schools (100%), 85% of participants in this study document children's development and assessment records regularly.

Contradictorily, most directors and teachers (76.9%) in this study indicate that they

would rather spend more time caring for children than engaging in regular documentation (see Table 52 in Ch 4).

Documentation could improve teaching quality. Documenting children's learning is one of the most valuable skills a teacher can learn (Helm et al., 1997; Katz, 1996). Documentation is also a communication device for directors, teachers, and parents (see Table 15 in Ch 4). Documentation could be more effectively shared with families, allowing teachers to respond to demands for accountability and be more effective in meeting special needs (Benson & Smith, 1998; Helm et al., 1997). Furthermore, both high-quality teaching and parents' satisfactions probably have a positive influence on student enrollment. Besides, documentation is usually the only way for teachers to present their situations to colleagues and parents.

In addition, some criteria require evaluation by examining documents whether or not the nursery schools reach the assessment standards. But documentation may not always guarantee good work; directors' and teachers' professional ethics play a role.

## 2. Human resources influence documentation.

The school size has an effect on nursery school documentation. The respondents who work in the schools which have fewer teachers are more likely than the respondents who work in the schools which have more teachers to agree that regular documentation does not conform to practical operations. Teachers would rather spend more time with children than on regular documentation, and the nursery school assessment increases extra documentation that is not necessary. The explanations may be that the smaller schools are short of human resources, or teachers may not need documentation to



communicate with their colleagues when only a single-teacher is in a single class, or teachers might talk with parents every day face-to-face. Another possible reason for the difference is that large schools may emphasize school management; systematic forms may be required and would help teachers' efficiency, thereby saving time for children.

Given the data from the survey, 91% of directors and teachers in this study, write in the parents' contact books at least once per month (see Table 16 in Ch 4). Most of the teachers document parents' contact books and children's development during children's nap and after dismissal (see Table 17 in Ch 4).

In Taiwan, nursery school teachers usually work more than eight hours a day and they do not have much time to rest if they stay at school after work. The teaching environment influences both what and how teacher teach; the nature and effect of these perceptions have important implications for recruitment and retention, and for the quality of teaching and learning (Leveson, 2004). Documentation becomes a point of contention among teachers, and it may lead them to a conflict between quality of work-life and documentation.

## **Family Service**

1. Most nursery schools neither have parental organizations nor support parental organizations.

The present study offers a clear result that family service is necessary in nursery schools. Establishing a reciprocal relationship with families is a guideline for a quality program (Bredekamp & Copple, 1997). Children learn better if their parents and teachers

work together and cooperate closely (Welch & White, 1999). However, parental organizations are not common in Taiwan. This result is consistent with the report of the 2002 Kaohsiung City Nursery Schools Assessment in which 90.9% (18.3% & 72.6%) of nursery schools neither have parental organizations nor support parental organizations (see Appendix J). One possible explanation for no parental organization is that the directors and teachers think that parents' opinions and involvement may influence the school's administration. Another possible cause is that parents are not willing to attend parents' organizations; parents may expect teachers to act as unsupervised, independent, professional service providers (Valcour, 2002).

## 2. Teaching experience leads to decreased support of consulting with parents.

On the basis of the study's findings, apparently teaching experience leads to decreased support of consulting with parents (see Table 25 & Table 26 in Ch 4). One possible explanation is that to most respondents, consulting is of less value to experienced teachers who have reached their limits of professional growth. However, in spite of the observed descriptive statistics, only a few respondents disagree with providing consulting service to parents (see Table 21 in Ch 4); the significant relationship between teaching experience and parental consulting service may be considered less evident.

A parental organization is a positive resource for assisting and supervising a school's administration. Directors and teachers can easily understand parents' expectations and difficulties through consultation. Managerial effectiveness requires responding to the demands and expectations of both teachers and parents through a

process of an efficient communications channel. In recent years the potential benefits for children's learning through good communications between parents and teachers have been much emphasized. Many countries have actively promoted home-school cooperation. Parent representation in governing bodies is statutory and has increased in the UK. In Taiwan, a more explicit statutory relationship is needed, involving complementary rights and duties, of the kind found in some other European countries and the Russian Republic (Roger Hancock, 2000).

### **Chinese Phonetic Signs & Writing**

#### **1. Teaching of Chinese phonetic signs and writing is a necessary curriculum.**

Given the data from the survey, clearly the findings for teaching of Chinese phonetic signs and writing contradict the nursery school assessment instrument in Taiwan. The results of whether to teach Chinese phonetic signs and writing are consistent with the report of the 2002 Kaohsiung City Nursery Schools Assessment (see Appendix J) in which most participant schools in this study teach Chinese phonetic signs (97.4%) and writing (88.5%) to children (see Table 37 in Ch 4).

#### **2. Teaching Chinese phonetic signs and writing to young children are to reduce the difficulty in the transition to elementary schools.**

The major reasons for teaching Chinese phonetic signs and writing to young children are to reduce the difficulty in the transition to elementary schools and to meet parents' expectations. The findings lead to the belief that Chinese phonetic signs and

writing should be taught in order to give kindergarten children additional practice prior to the transition to elementary schools. The expectations of Chinese parents play a significant role in their children's school achievement (Li, 2001). They may request Chinese phonetic signs learning and writing in their children's classroom. Besides, the official regulation in Taiwan provides no explanation as to why teaching Chinese phonetic signs and writing to nursery schools children indicates a low-quality curriculum.

### 3. More mature caregivers lean toward teaching Chinese phonetic signs and writing.

Another result shows that more mature caregivers lean toward teaching Chinese phonetic signs and writings to nursery school children (see Table 35 in Ch 4). One explanation that may account for this result is that previous teacher training programs emphasized children's learning through a teacher-directed approach, whole-group instruction, and academic learning. Teaching Chinese phonetic signs and writings in nursery schools may combine these three techniques.

## **Talent Lessons**

The results of whether or not to provide talent lessons are consistent with the report of the 2002 Kaohsiung City Nursery Schools Assessment (see Appendix J). In the present study, 85.9% of participants' schools provide talent lessons to children (see Table 57 in Ch 4). Both studies suggest that talent lessons commonly occur in nursery schools.

Subject specialists teach talent lessons. Oppositely, an integrated curriculum and self-contained classes have wide support from professional early childhood authorities.

However, high parental expectations, rooted in Chinese cultural heritage, are motivated; parents expect their children to learn more and achieve excellence (Li, 2001). Directors and teachers may modify their service according to the feedback from parents (Chen & Luster, 2002). Besides, talent lessons could develop, identify and serve children with potential talents in the performing arts. Music lessons and physical education, taught by subject specialists in nursery schools are very common in most countries. The alternative way for nursery schools to provide higher quality talent lessons is for classroom teachers and talent's instructors to work together.

### **Effects of School Size on Assessment Outcome**

Unanticipated findings in the present study indicate that school size has effects on the acceptance of the governmental assessment instrument, as well as on the scores of the 2002 Kaohsiung City Nursery School Assessment (see Table 58 & Table 59 in Ch 4).

The caregivers who work in large schools are more likely than the caregivers who work in small schools to have confidence in the assessment requirements. The results also show that the large nursery schools' scores are significantly better than the small nursery schools in nursery school assessment. In addition, related to the results concerning documentation, the respondents from small schools tend to be less supportive of the importance of documentation, and they also receive poorer scores in the nursery school assessment. Thus, from integration of these findings a conclusion could be, with certainty, that large schools have extra teachers and staff to complete the documentation which has an effect on assessment scores.

### **Models of Three Systems**

The rational-systems, natural-systems, and open-systems are three models used to interpret the organizational behaviors between formal structures and informal structures of nursery schools. The rational-systems model focuses on standardized rules, procedures, expertise, efficiency, and formalized control. The natural-systems model focuses on individuals' personal and professional needs, informal relationships, morale, and informal modes of control. The open-systems model focuses on how varied elements of external environment place pressures and incentives on various actors within the organization (Hoy & Miskel, 2001).

#### **Rational Systems Model**

The rational-systems model is a set of actions, organized and implemented to achieve standardized goals with maximum efficiency. A rational-systems model predicts that behavior is a function of rules and structures; this authoritatively driven system is present in Taiwan. As shown in Figure 1, parents' expectations, children's needs, the government's assessment, and directors' and teachers' behaviors are the four subsystems influencing nursery schools' operation. The top of the organization (the government and directors) establishes the rules and procedures; these regulations translate into new behavior at the bottom (teachers).

---

Rational Systems Model

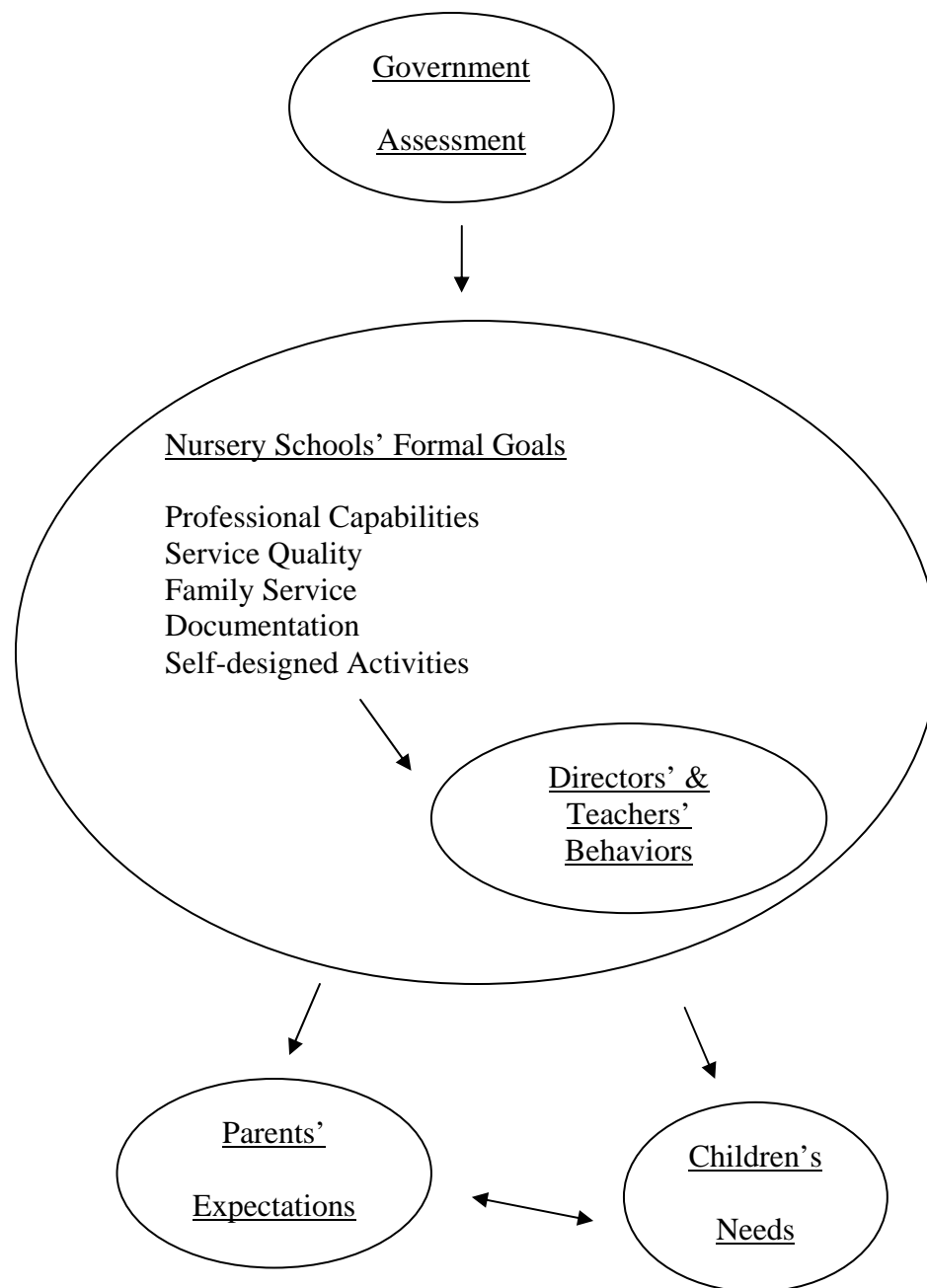


Figure 1: Rational Systems Model

---

Based on the belief that high-quality early childhood programs have significant effect on children's development, the government regulates the formal policies for all nursery schools and teachers in order to generate efficient outcomes. In Taiwan, the government formally controls the educational system which includes regulation and evaluation of nursery schools and teachers. Each local Social Affairs Bureau regularly evaluates nursery schools; the academic authorities conduct the assessment. All nursery schools are mandated to participate in this assessment, whose outcomes become public through general announcement. Nursery schools have formal structures to achieve specified goals such as professional capabilities, service quality, family service, documentation, and early childhood education curricula. Formalized professional capabilities, service quality, documentation, and family service are the nursery schools' goals to make behavior predictable by standardizing and regulating it. In the hierarchies of authority, directors' decision making is centralized and influences teachers' beliefs and teaching behavior (Chien, 2001).

The 2002 Kaohsiung City Nursery School Assessment evaluated those schools using packaged instructional materials, teaching of Chinese phonetic signs, writing, and talent lessons as having low-quality curricula. And many academic authorities insist that the pre-planned curriculum (packaged instructional materials) may lack integrity and may be unrelated to children's interests and individual differences because most of the packaged instructional materials are very academic and achievement-oriented. Also these materials focus on learning reading, writing, and arithmetic to prepare children for first grade in response to parents' expectations.



Because the Social Affairs Bureau and academic authorities conclude that the teaching of writing and Chinese phonetic signs may harm fine motor development in young children, they evaluate these as part of low-quality curricula. A rational-systems model predicts that teachers will follow this guideline. But how can the fact that writing and reading continue to be taught in nursery schools be explained? In fact, the rational-system models cannot account for this; other theoretical perspectives, however, such as the natural-systems model and open-systems model, can account for this.

### **Natural Systems Model**

The natural-systems model predicts that the organization will adjust the rules to consider individual needs rather than conform to formal goals. The natural-systems model also predicts that behavior will be a function of informal policies, informal networks, and teachers' individual needs.

Self-designed activities are the formal goal recommended by government evaluation and, for them, represent high-quality curricula in nursery schools (see Figure 1). However, as shown in Figure 2, many teachers prefer packaged instructional materials because of their significant value in saving time and making resources available. While teaching Chinese phonetic signs, writing, and talent lessons were officially evaluated as providing low-quality curricula in the 2002 Kaohsiung City Nursery School Assessment, most nursery school teachers teach Chinese phonetic signs, writing, and talent lessons to young children due to the influence of teaching experience. This study shows that teachers challenge the formal goals and rules with individual

beliefs. The teachers argue that behavior in nursery schools is regulated by informal structures, even though they recognize that formal structures exist. The informal norms emerge to govern teachers' behaviors and create uniformity among nursery schools. However, nursery school teachers use the informal structure to protect themselves against the government regulation (no teaching of package instructional materials, writing, and Chinese phonetic signs).

To survive, nursery school teachers teach packaged instructional materials, writing, Chinese phonetic signs, and talent lessons. These critical issues are unofficial expectations and more important than formal expectations in nursery schools. The teachers' behaviors become the informal norms and the internal school policies which influence the schools' goals.

---

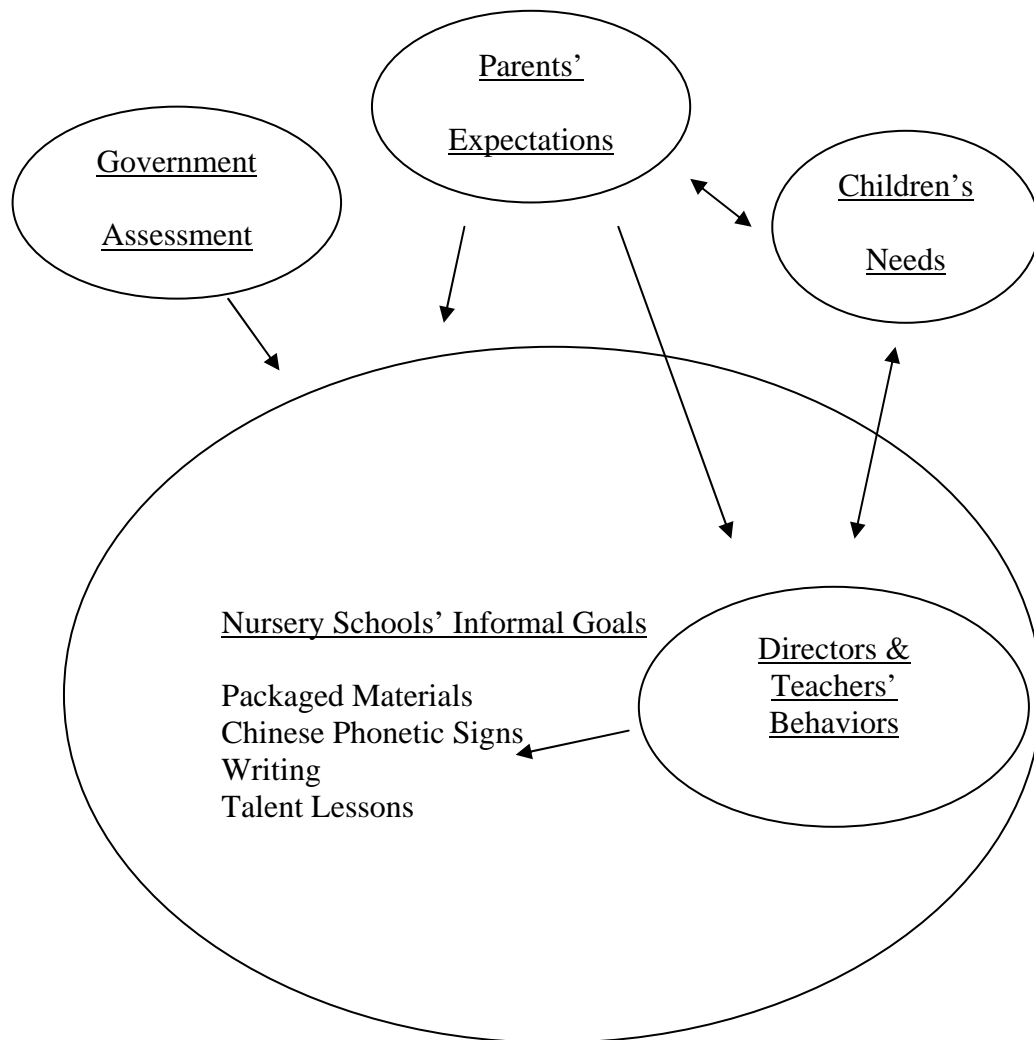
Natural Systems Model

Figure 2: Natural Systems Model

---

## **Open Systems Model**

The open-systems model predicts that external demands and incentives will influence organizational goals (Scott, 1998). The open-systems model provides a synthesis by combining the rational-systems model and natural-systems model. Being consistent with an open-systems model, this study shows that nursery schools' directors and teachers understand parents' expectations that influence schools' operations.

As shown in Figure 3, parents' expectations, children's needs, the government assessment, and directors' and teachers' behaviors are the four subsystems that interact with each other to influence nursery schools' goals. Although the local Social Affairs Bureau supervises the nursery schools, parents' expectations are a more powerful influence on nursery schools' goals.

---

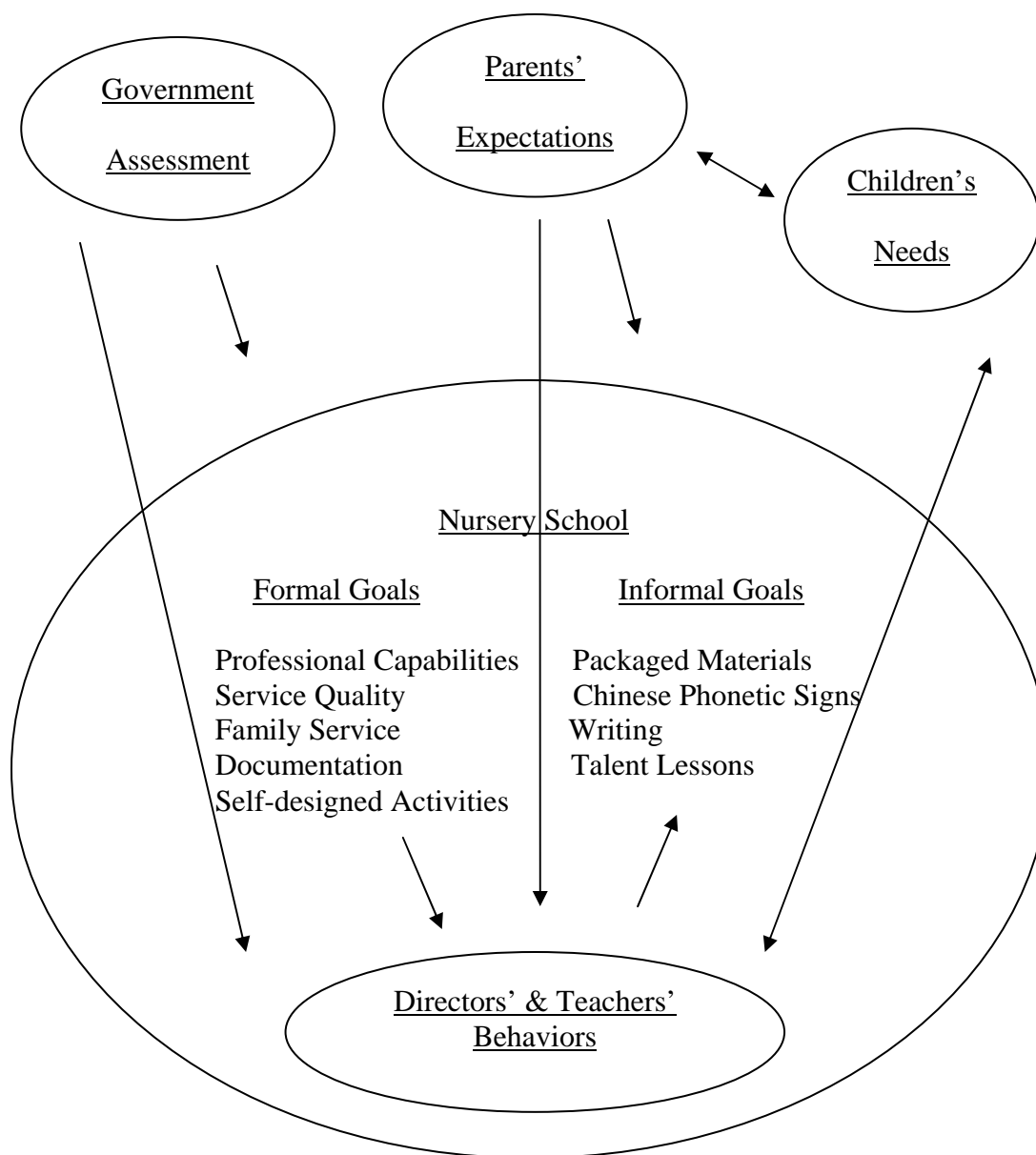
Open Systems Model

Figure 3: Open Systems Model

---

Originally, the nursery schools establish goals which are in accord with government regulations and policies. Parents' expectations originate from their personal backgrounds, their experience, the professional literature, other early childhood educators, the media and their children (Grossman, 1999). High parental expectations arise from Chinese cultural heritage. Both goals and expectations affect basic cooperation (Liebrand, et al., 1992). Directors and teachers may modify their goals and services due to parental expectation and market competition. A social dilemma can explain the conflict among the government regulations, nursery schools' goals, and parents' expectations (Schulz, et al., 1994). Nursery schools' goals may be maintained if they match the parents' and children's needs. Government regulations and teachers' needs may be sacrificed due to market competition. In the present study, identical attitudes to professional capabilities, family service, and documentation between the government regulations and nursery schools appeared. Opinions are that the government rules and nursery schools' goals can be maintained and carried out.

As the teachers stated, some parents do not trust that teachers can design good quality curricula. Packaged instructional materials are created carefully and are convincing to parents, but these materials may ignore children's interests if teachers only follow teaching guides and textbooks. Elementary schools arrange only ten course weeks to teach Chinese phonetic signs. Parents request the teaching of Chinese phonetic signs and writing so that their children can be ready for elementary schools. Teachers worry that children will become frustrated if they do not advance in learning the skills of Chinese phonetic signs in nursery schools. Providing talent lessons in nursery schools are not supported by the Social Affairs Bureau of Kaohsiung City Government. Nevertheless,

according to the 2002 Kaohsiung City nursery school assessment report, 85.5% of nursery schools scheduled talent lessons for young children. Additionally, 85.9% of directors and teachers in this study stated that talent lessons are essential curricula in their schools (see Appendix J).

In Taiwan, according the government evaluation, packaged instructional materials, teaching Chinese phonetic signs and talent lessons score as moderate to low in terms of quality curricula in the nursery school assessments. Nevertheless, they are very commonly found in most nursery schools. One possible explanation is that parents' expectations represent the demand of the market which affects nursery school operations. Another possible cause is that Taiwanese culture places great value on academic excellence. Student enrollment at any given nursery school would drop if that nursery school did not satisfy parents' expectations and cultural demands. Market competition influences the nursery schools' goals, directors' and teachers' behaviors.

The open-systems model predicts that teachers are influenced by the external environment; by forces outside of the formal organization (parents). Nursery schools have formal structures to achieve specified goals. To survive, the nursery schools must modify their goals due to market competition. To satisfy parents' expectations and children's needs, the informal goals emerge from the effect of the external culture. In this study, the nursery schools' directors and teachers understand the external demands that influence schools' operations. Thus, the conclusion is, with certainty, that Scott's (1988) open-systems model, which predicted market pressures, explains significant amounts of variance among parents' expectations, children's needs, the government assessment, and directors and teachers' behaviors.

### **Final Thoughts on Models of Three Systems**

The Social Affairs Bureau evaluates the teaching of packaged instructional materials, writing, and Chinese phonetic signs as low-quality curricula. But, this study shows that many parents request the teaching of packaged instructional materials, writing, and Chinese phonetic signs so that their children are ready for elementary schools, therefore the nursery schools, in spite of governmental directives, may teach the children packaged instructional materials, writing, and Chinese phonetic signs to satisfy parents and reduce the risk of low enrollment.

The Social Affairs Bureau of Kaohsiung City Government understands that teachers' and directors' behaviors are due to the market competition. However, the academic authorities' perspectives receive far greater consideration, more often, than those of the parents, children, directors and teachers. The decision makers at the Social Affairs Bureau may not change the rules unless the academic authorities support and provide good research results supporting the use of packaged instructional materials, or for teaching of Chinese phonetic signs, writing, and talent lessons to nursery school children. The Social Affairs Bureau regular assessment of nursery schools may avoid over-competition in the market place if competition has a negative influence on program quality.

Nursery school assessment and policies are shaped at the top of the Social Affairs Bureau; some rules often break-down at the bottom because teachers' behaviors and parents' expectations are not congruent with the needs, views, and values of decision makers. The Social Affairs Bureau and academic authorities should accept that teaching



of packaged instructional materials, writing, and Chinese phonetic signs stem from teachers' practical experience and parents' expectations. The execution or reform of governmental regulations will often be unsuccessful if these local views and needs are ignored or undervalued.

### **Relationship to Previous Research**

Unlike Chang and Lee (2002) who relied upon all nursery schools having high confidence in the 2002 Kaohsiung City nursery school assessment instrument, the present study yields similar attitudes of participants only on professional capabilities and service quality. The previous study is lacking in complete understanding of the particular criteria which relate to significant issues in early childhood education.

The results of this study are consistent with the 2002 Kaohsiung City nursery school assessment report, the criteria which had low score averages also had low possibilities of being accepted by the directors and teachers in the present study (see Appendix J). Packaged instructional materials, teaching of Chinese phonetic signs and writing, and talent lessons are the significant issues that produced the lowest scores in both the 2002 Kaohsiung City nursery school assessment report and the present study. Speculatively, the reasons why participants are unable to attain the standards of the 2002 Kaohsiung City Nursery School Assessment may stem from their inability to agree with these regulations.

Besides, unlike the previous study (Chang & Lee, 2002), the findings in the present study indicate that school size effects scores and confidence in the 2002

Kaohsiung City Nursery School Assessment. In addition, both the 2002 Kaohsiung City nursery school assessment report and the present study found market competition to be an influence on obedience to the nursery school assessment criteria. Unlike the 2002 Kaohsiung City nursery school assessment report, Chang & Lee (2002) criticized, without any evidence, the low scores for talent lessons and Chinese phonetic signs since childcare services have become a business. The present study collected participants' narratives to further interpret that market competition, arising from parents' expectations, which establishes parental satisfaction, has an influence on student enrollment and market competition.

### **Limitations of the Study**

The sample size was small due to the limitation of human resources. In order to increase the reliability of this study, the questionnaire was personally delivered, explained, and collected at each nursery school. The present study also has difficulty with increased sample size due to proportional allocation, stratified random sampling. Decreased numbers of directors and teachers from schools needing improvement may result from their rejecting participation in this study (see Appendix D). Besides, the sample was limited since some nursery schools did not have directors and teachers who had experience with the 2002 Kaohsiung City Nursery School Assessment.

Another methodological weakness of this study is that the teachers were not random participants. The directors knew whether the teachers had experience with the 2002 Kaohsiung City Nursery School Assessment and invited them to participate in this

study. Selected teachers may give consideration to directors' opinions since the questionnaire may pass through the directors to the researcher. In addition, the teachers may have attitudes similar to their directors' attitudes due to both of them being selected from the same school.

One concern is that the findings may not generalize to some other groups. Public nursery schools and kindergartens have significant resources and grants, and they usually do not have the stress of student enrollment and market competition concerns.

### **Implications for Professional Practices**

The present study offers clear evidence that nursery schools' directors and teachers doubted the validity of the governmental assessment instrument, especially on the critical issues of packaged instructional materials, Chinese phonetic signs, writing, and talent lessons. This study suggests that the Children's Bureau Ministry of the Interior and the Social Affairs Bureau should understand that most directors and teachers in Kaohsiung City expect modification of the evaluation early childhood education/care.

Parents expect their children to learn Chinese phonetic signs, writing, and talent lessons in nursery schools. The current regulations for curriculum are insufficient for the young children. The nursery schools directors and teachers do not know why the teaching of Chinese phonetic signs, writing, and talent lessons receives low-quality curriculum evaluation. The assessment standard should not judge the program's quality according to whether or not it teaches Chinese phonetic signs, writing, and talent lessons. Oppositely,

this study recommends that Chinese phonetic signs, writing, and talent lessons should be encouraged and focused should be on evaluating process quality.

Early literacy and emerging literature reduce social problems, have positive effects on language and preliteracy skills and predict program quality (Makin et al., 2000; Snow et al., 1999). Children love to write; daily writing experiences are widespread in early childhood classrooms (Moutray & Snell, 2003); prohibiting writing does not respect children's development. Teachers should supply sufficient reading and writing equipment within an open education environment instead of requesting children write Chinese phonetic signs in small grids.

Talent lessons should be allowed and should emphasize exploring children's talent potentials. Music lessons, art and physical education may be co-taught by professional instructors and classroom teachers. Therefore, classroom teachers can make-up the short-comings of subject specialists who lack a background in early childhood education/care. Besides, for teachers and parents, these activities would provide opportunities for understanding children's development of special talents.

Some excellent resources such as education materials are available to help teachers use educational resources' more complex options (Bergent, 2002). The assessment instrument should not group packaged instructional materials as low-quality curricula since self-designed activities do not guarantee high-quality. Governmental officials and professional authorities should help to evaluate and promote the quality of packaged instructional materials. Teachers should bring self-designed activities and packaged instructional materials together and modify them according to children's development. Besides, high-quality classrooms display child-initiated, child-directed,

active-learning, and play-oriented teacher-supported play that are the essential components of developmentally appropriate practice (Wiltz & Klein, 2001).

Governmental officials, professional authorities and practitioners should emphasize the way teachers' teach Chinese phonetic signs, writing, talent lessons, self-designed activities, and packaged instructional materials instead of just passively excluding them.

Governmental officials and assessing committee members should be careful in applying nursery school assessment standards since the school size has a significantly positive correlation to documentation, as well as to assessment scores. More human resources could allow more complete documentation. However, complete documentation did translate to high-quality programs. This study recommends that program evaluation should focus on observation of real situations and process quality rather than closely examining documentation.

Besides, nursery schools provide service to children and parents. Sometimes parents' school choices are dependent on adapting to expectations rather than school quality. Market competition that arises from school choice might not generate a vast quantity of outstanding new schools. Instead of school choice, children need parents who understand schooling, and the only real hope for quality schools is to educate parents as consumers.

### **Recommendations for Further Research**

This study's findings lend support to the assumption that the nursery school assessment instrument is unconvincing to directors and teachers, especially on the critical

issues of packaged instructional materials, Chinese phonetic signs, writing, and talent lessons. Currently, combining both self-designed activities and packaged instructional materials are common practices in most nursery schools. A study that traces a comparison of the differences and advantages of packaged instructional materials, self-designed activities, and combinations of both may assist professional practice in choosing and applying them to curricula.

Future research should identify whether or not packaged instructional materials, Chinese phonetic signs and writing, and talent lessons in nursery schools could advance children's learning and development. Other investigations could conduct longitudinal studies of learning Chinese phonetic signs, writing, and talent lessons between nursery schools and elementary schools to determine whether a longitudinal effect exists for children's academic development. Further recommendations include applying a qualitative research to teachers who teach first grade to determine their opinions of whether or not their students have advanced learning of Chinese phonetic signs and writing before the first grade. Process qualities are at the core of professional capabilities (Katz, 2003). Furthermore, an investigation is needed to create an instrument for assessing the process quality of teaching of packaged instructional materials, Chinese phonetic signs, writing, and talent lessons. This could effectively advance the quality of teachers applying packaged instructional materials, Chinese phonetic signs, writing, and talent lessons.

Continued exploration of the relationship between school size and nursery school assessment is necessary to understand how human resources influence nursery school assessment results. Moreover, the approach outlined in this study should be duplicated

for all directors, teachers, and parents in Kaohsiung City, as well as in other regions of Taiwan. Such an investigation would convince professional authorities to see if all caregivers hold the same attitudes toward the nursery school assessment instrument. This would be an improvement over the random sample of directors and teachers in this study.

Since documentation may require extra human resources to complete and is an influence on assessment outcome, additional research should focus on the investigation of alternative techniques applied to nursery school assessment rather than just examination of documentation. A reliable assessment outcome may depend on the professional attitudes of assessing members. Thus, further research could employ efficient training of assessing members and decreasing the relevance gap, if any, among assessing members, directors, and teachers.

### **Summary of the Discussion**

A valid program quality measure is essential for research and program evaluation, and can communicate to many audiences (Epstein, 2000). The present findings open a new window to the investigation of nursery school directors' and teachers' attitudes toward use of a governmental assessment instrument in early childhood education and care. The criteria related to packaged instructional materials, Chinese phonetic signs, writing, and talent lessons in the assessment instrument are enjoyed with reduced confidence among nursery school directors and teachers. Parents' expectations influence directors' and teachers' perceptions while directors and teachers attempt to apply nursery school assessment.

Currently, most nursery schools adapt activities by combining both self-designed activities and packaged instructional materials. Teaching Chinese phonetic signs and writing are considered a necessary curriculum aspect in order to give kindergarten students additional practice in advance of the transition to elementary schools. In Taiwan, providing talent lessons is widely adopted in nursery schools. An open-systems model could apply to interpretation of the phenomenon among government regulations, parents' expectations, children's needs, nursery schools' goals, and directors' and teachers' behaviors. These critical issues relate to parents' expectations and no clear evidence shows these issues have a negative influence to children. The regulations and assessments should not evaluate teaching Chinese phonetic signs, writing, and talent lessons as being low-quality curriculum. Instead focusing on process qualities the way teacher teach packaged instructional materials, Chinese phonetic signs and writing, and talent lessons, is far more relevant. Documentation is an important technique to improve the work quality of nursery school directors and teachers. The amount of human resources needed affects the completion of documentation. The school size (human resource) has a positive influence on the outcome of assessment. The large schools have extra teachers and staff to complete the documentation. Therefore, one conclusion is that the scores of nursery schools assessments depend on the completion of documentation.

From a methodological perspective the preceding analysis has revealed the growing value of nursery school assessments that influence the quality of nursery schools and attitudes of directors and teachers. Emphasizing the process qualities of teaching of packaged instructional materials, Chinese phonetic signs, writing, and talent lessons could solve the conflicting perception between the government's expectation and the



nursery school's needs which are reflected in parents' expectations. When the government, nursery schools, and parents are held accountable for high standards, an expectation of continued progress and development in understanding of quality education is a reasonable expectation. This cooperation will benefit all children in their school learning throughout their early childhoods (Farrar, 1999).

## Bibliography

- Adams, S. K. & Christenson, L. S. (2000). Trust and the family-school relationship examination of parent-teacher differences in elementary and secondary grades. *Journal of School Psychology, 38* (5), 477-497.
- Alter, J. (2001). Quality management in early childhood programs. *Infants and Young Children, 14* (1), 79-83.
- Azer, S., Morgan, G., Clifford, M. R., & Grawford, M.G. (2002). Regulation of child care: Early childhood research & policy briefs. *National Center for Early Development & Learning, Chapel Hill, NC. 2* (1). (ERIC Document Reproduction Service No. ED463896)
- Behling, O. & Law, K. (2000). *Translating questionnaires and other research instruments*. Thousand Oaks, CA: Sage Publications.
- Benson, R. T. & Smith, J. L. (1998). Portfolios in first grade: Four teachers learn to use alternative assessment. *Early Childhood Education Journal, 25* (3), 173-180.
- Bergent, D. (2002). Choosing technology to meet varied learning purposes. *Childhood Education, 79* (2), 114-116.
- Berk, L. E., & Winsler, A. (1995). *Scaffolding children's learning: Vygotsky and early childhood education* (Vol. v. 7). Washington: National Association for the Education of Young Children.
- Bredenkamp, S. & Copple, C. (Eds.) (1997). *Developmentally appropriate practice in*

- early childhood programs* (rev. ed.). Washington, DC: National Association for the Education of Young Children.
- Buell, M. J. & Cassidy, D. J. (2001). The complex and dynamic nature of quality in early care and educational programs: a case for chaos. *Journal of Research in Childhood Education*, 15 (2), 209-219.
- Ceglowski, D. & Bacigalupa, C. (2002). Four perspectives on child care quality. *Early Childhood Education Journal*, 20 (2), 87-92.
- Chang, T. -E. & Lee, H. -M. (2002), 托兒所評鑑模式建構之研究: 以高雄市為例 [A research on construct of nursery school assessment: Kaohsiung City as a sample]. Social Affairs Bureau of Kaohsiung City Government.
- Chattin-McNichols, J. (1992). *The Montessori controversy*. Albany, NY: Delmar Publishers Inc.
- Chen, F. -M. & Luster, T. (2002). Factors related to parenting practices in Taiwan. *Early Child Development and Care*, 172, 413-430.
- Chien, C. -Y. (2001). 幼稚園園長與托兒所所長角色及其所處園所文化環境互動關係之研究 [Kindergarten and nursery school directors' role and its interaction with the culture]. *教育心理研究*, 台北, 台灣: 國立政治大學.
- Chien, S. -C. (1998). 蒙特梭利教學法與單元教學法對幼兒發展影響之比較研究 [The effects of the Montessori method and Thematic method on children's development]. *家政教育學報*, 台北, 台灣: 國立師範大學.
- Chien, S. -Y. (2001). 蒙特梭利教學法 [Montessori Approach]. In Chien, C.Y. (Eds.), *幼教課程模式* (pp. 379-433). 台北, 台灣: 心理出版社.

- Children's Bureau Ministry of the Interior R.O.C. (2004. April). 托育機構評鑑作業規範 [Nursery school assessment plan]. Retrieved March 15, 2006, from Children's Bureau Ministry of the Interior R.O.C.: <http://www.cbi.gov.tw/welcome.jsp>.
- Click, P. (2000). *Administration of schools for young children*. Albany, NY: Delmar Publishers.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.
- Cronbach, L. J. (1990). *Essentials of psychological testing* (5th ed.). New York, NY: Harper Collins.
- Cryer, D. (1999). Defining and assessing early childhood program quality. *Annals of the American Academy of Political and Social Science*, 563, 39-56.
- Cryer, D., Tietze, W., & Wessels, H. (2002). Parents' perceptions of their children's childcare: a cross-national comparison. *Early Childhood Research Quarterly*, 17, 259-277.
- Davis-Kean, E. P. (2005). The influence of parent education and family income on child achievement: the indirect role of parental expectations and the home environment. *Journal of Family Psychology*, 19 (2), 294-304.
- Decker, C. A., & Decker, J. R. (2005). *Planning and Administering Early Childhood Programs*. NJ: Prentice Hall.
- Dunlap, L. L. (2002). *What all children need?* Lanham, NY: University Press of America.
- Epstein, A. S. (1999). Pathways to quality in Head Start, public school, and private nonprofit early childhood programs. *Journal of Research in Childhood Education*,

13 (2), 101-119.

Epstein, A. S. (2000). Guidelines for effective evaluation tools: measuring the quality of early childhood programs. *Child Care Information Exchange*, 135, 66-69.

Epstein, A. S., Schweinhart, L. J., & McAdoo, L. (1996). *Models of early childhood education*. Ypsilanti, MI: High/Scope Press.

Farrar, M. & Crabtree, H. (1999). Achieving customer loyalty in an educational marketplace. *Total Quality Management*, 10, 531-539.

Goffin, S. G. (2003). NAEYC commission seeks comments on early childhood program standards. *Young Children*, 58, 78-80.

Golbeck, S. L. (2002). *Instructional models for Early Childhood Education*. ERIC Digest. Office of Educational research and Improvement (ED), Washington, DC. (ERIC Document Reproduction Service No. ED468565)

Grossman, S. (1999). Examining the origins of our beliefs about parents. *Childhood Education*, 76 (1), 24-27.

*Guide to Accreditation by the National Association for the Education of Young Children*. (1998). Washington, DC: National Academy of Early Childhood Programs- the Accreditation Department of the National Association for the Education of Young children.

Hall, H. A. & Cassidy, J. D. (2002). An assessment of the North Carolina school-age child care accreditation initiative. *Journal of Research in Childhood Education*, 17(1), 84-96.

Harms, T., Clifford, R. M., & Cryer, D. (1998). *Early childhood environment rating scale* (Rev. ed.). New York, NY: Teachers College Press.

- Helm, J. H., Beneke, S. & Steinheimer, K. (1997). Documenting children's learning. *Childhood Education*, 73 (4), 200-205.
- Helm, J. H. & Katz, L. G. (2001). *Young investigators: The Project Approach in the early years*. New York, NY: Teachers College, Columbia University.
- Hewett, V. M. (2001). Examining the Reggio Emilia Approach to early childhood education. *Early Childhood Education Journal*, 29 (2), 95-100.
- Hohmann, M. & Weikart, D. P. (1995). *Educating young children*. Ypsilanti, MI: High/Scope Press.
- Howe, N. & Jacobs, E. (1995). Child care research: a case for Canadian National Standards. *Canadian Psychology*, 36 (2), 131.
- Hoy, K. W. & Miskel, G. C. (2001). *Educational administration*. New York, NY: McGraw-Hill.
- Huck, W. S. (2004). *Reading statistics and research*. New York, NY: Pearson.
- Hunt, J. T. & Hunt, B. (2004). Teaching is revision. *English Journal*, 94 (1), 100-103.
- Illinois early childhood program standards matrix*. (2002). Head Start State Collaboration Office, Illinois State Dept. of Human Services, East St. Louis. (ERIC Document Reproduction Service No. ED463050)
- Isbell, R. T. (1995). *The complete learning center book*. Beltsville, MD: Gryphon House.
- Jacobson, A. L. & Engelbrecht, J. (2000). Parenting education needs and preferences of parents of young children. *Early Childhood Education Journal*, 28 (2). 139-147.
- Johnson, J. E., Christie, J. F., & Yawkey, T. D. (1999). *Play and early childhood development*. New York, NY: Longman.
- Jones, I. (1999). A workshop approach. *Science and Children*, 37 (3), 26-55.

- Katz, L. G. (1993). *Multiple perspectives on the quality of early childhood programs*.  
(ERIC Document Reproduction Service No. ED355041)
- Katz, L. G. (2003). The right of the child to develop and learning quality environments.  
*International Journal of Early Childhood*, 35, 13-22.
- Katz, L. G. & Chard, S. C. (1996). *The contribution of documentation to the quality of early childhood education*. ERIC Digest. (ERIC Document Reproduction Service No. ED393608)
- Katz, L. G. & Chard, S. C. (2000). *Engaging children's minds: The Project Approach*.  
Stamford, Connecticut: Ablex Publishing Corporation.
- Leveson, L. (2004). The things that count: negative perceptions of the teaching environment among university academics. *The International Journal of Education Management*, 18 (6/7), 368-373.
- Li, J. (2001). Expectations of Chinese immigrant parents for their children's education: the interplay of Chinese tradition and the Canadian context. *Canadian Journal of Education*, 26, 477.
- Lillard, P. P. (1972). *Montessori: A modern approach*. New York, NY: Schocken Books Inc.
- Lin, Y. W. (2002). Early childhood services in Taiwan. In Chan, L. K. S. & Mellor, E. J. (Eds.), *International Developments in Early Childhood Services* (pp.195-210).  
New York, NY: Peter Lang Publish, Inc.
- Liu, K. C. Y. & Chien, C. Y. (1998). Project Approach and parent involvement in Taiwan. *Childhood Education*, 74 (4), 213-219.
- Lu, S. -B. (2001). 單元教學 [Thematic-Unit Approach]. In Chien, C. -Y. (Eds.),

幼教課程模式 (pp. 7-48). 台北, 台灣: 心理出版社.

- Makin, L., Hayden, J., & Diaz, C. J. (2000). High-quality literacy programs in early childhood classrooms: an Australian case study. *Childhood Education*, 76 (6), 368-373.
- Mangano, M. C. (1999). *Assuring quality in early childhood settings: A report on accreditation processes and quality standards*. Philadelphia Citizens for Children and Youth.
- Mcdevitt, T. M. & Ormrod, J. E. (2004). *Child development: Educating and working with children and adolescents*. Upper Saddle River, NJ: Merrill/Prentice Hall.
- Mellor, E. J., & Chan, L. K. S. (2002). Conclusion: Contexts, issues, developments, trends, and challenges. In L. K. S. Chan & E. Mellor (Eds.), *International developments in early childhoods services* (pp. 253-270). New York, NY: Peter Lang.
- Mindes, G. (2003). *Assessing young children*. Columbus, Ohio: Merrill Prentice Hall.
- Montessori, M. (1964). *The Montessori Method*. New York, NY: Schocken Books.
- Morrison, G. S. (2001). *Early childhood education today*. Columbus, Ohio: Merrill/Prentice Hall.
- Moutray, C. L. & Snell, C. A. (2003). Three teachers' quest: providing daily writing activities for kindergartners. *Young Children*, 58 (2), 24-28.
- Muijs, D. (2004). *Doing quantitative research in education with SPSS*. Thousand Oaks, Calif., London: Sage Publications.
- Mussen, P. (1979). *The psychological development of the child*. Englewood Cliffs, NJ: Prentice Hall.



- Peisner-Feinberg, S. E., Burchinal, R. M., Clifford, M. R., Culkin, L. M., Howes, C., Kagan, L. S., & Yazejian, N. (2001). The relation of preschool child-care quality to children's cognitive and social developmental trajectories through second grade. *Child Development, 72* (5), 1534-1553.
- Petrick Steward, E. (1995). *Beginning writers in the zone of proximal development*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Piaget, J. (1976). *To understand is to invent: the future of education*. New York, NY: Penguin Books.
- Piaget, J. & Inhelder, B. (2000). *The psychology of the child*. New York, NY: Basic Books.
- Rao, N., Koong, M., Kwong, M., & Wong, M. (2003). Predictors of preschool process quality in a Chinese context. *Early Childhood Research Quarterly, 18*, 331-350.
- Roger Hancock, D. B. (2000). What are parent-school organizations for? Some views from an inner-London LEA. *Educational Review, 52* (3), 259-267.
- Rule, A. C. & Stewart, R. A. (2002). Effects of practical life materials on kindergartners' fine motor skills. *Early Childhood Education Journal, 30* (1), 9-13.
- Salant, P. & Dillman, A. D. (1994). *How to conduct your own survey*. Canada: Wiley.
- Sax, G. (1997). *Principles of educational and psychological measurement and evaluation*. Belmont, CA: Wadsworth.
- Schulz, U., Albers, W., & Mueller, U. (1994). *Social dilemmas and cooperation*. Berlin, NY: Springer-Verlag.
- Scott, W. R. (1998). *Organizations: rational, natural, and open systems* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

- Sergiovanni, T. J., & Starratt, R. J. (2002). *Supervision: A redefinition* (7th ed.). Boston, MA: McGraw-Hill.
- Sheridan, S. & Schuster, K. M. (2001). Evaluation of pedagogical quality in early childhood education: A cross-national perspective. *Journal of Research in Childhood Education*, 16 (1), 109-125.
- Shim, J., Hestenes, L. & Cassidy, D. (2004). Teacher structure and child care quality in preschool classrooms. *Journal of Research in Childhood Education*, 19 (2), 143-157.
- Smilansky, S. (1990). Socio-dramatic play: its relevance to behavior and achievement in school. In E. Klugman & S. Smilansky (Eds.), *Children's play and learning: Perspectives and policy implications* (pp.18-42). New York, NY: Teachers College Press.
- Snow, C. E., Burns, M. S., & Griffin, P. (1999). *Language and literacy environments in preschools*. ERIC Digest. (ERIC Document Reproduction Service No. ED426818)
- Statistical Package for the Social Sciences (Version 13.0) [Computer software and brief guide]. (2004). Chicago, IL: LEAD Technologies Inc.
- Su, I. -C. (2001). 學習角與大學習角 (Learning Center Approach). In Chien, C.-Y. (Eds.), *幼教課程模式* (pp. 49-120). 台北, 台灣: 心理出版社.
- The 2002 Kaohsiung City Nursery School Assessment Report. (2002, October). Retrieved July 1, 2003, from Social Affairs Bureau of Kaohsiung City Government Report Online: <http://www.kcg.gov.tw/~socbu/socbu/a01.htm>

- Trepanier-Street, M. (2000). Multiple forms of representation in long-term projects: the garden project. *Childhood Education*, 77 (1), 18-25.
- Turner, J. (1999). Assessing the physical environment in an early childhood program. *Montessori Life*, 11 (3), 12-21.
- Valcour, M. P. (2002). Managerial behavior in multiplex role system. *Human Relation*, 55 (10), 1163-1188.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1997). *Educational psychology*. Boca Raton, FL: St. Lucie Press.
- Vygotsky, L. S. & Luria, A.R. (1998). *Ape, primitive man, and child: Essays in the history of behavior*. Boca Raton, FL: St. Lucie Press.
- Weikart, D. P. (1998). The High/Scope curriculum for early childhood care and education. 一九九八國際幼兒教育課程學術研討會論文集. (pp. 89-123). 嘉義: 嘉義大學印製.
- Weikart, D. P. (1999). What should young children learn? Teacher and parent view in 15 countries. *The IEA Preprimary Project, Phase 2*. Ypsilanti, MI: High/Scope Press. (Abstract in ERIC Document Reproduction Service No. ED433123)
- Welch, M. D. & White, B. (1999). *Teacher and Parent Expectations for Kindergarten Readiness*. Caddo Parish Special Programs- Special Education Department. (ERIC Document Reproduction Service No. ED437225)
- Wiltz, W. N. & Klein, L. E. (2001). "What do you do in child care?" Children's perceptions of high and low quality classrooms. *Early Childhood Research Quarterly*, 16, 209-236.

- Wishard, G. A., Shivers, E. M., Howes, C., Ritchie, S. (2003). Child care program and teacher practices: associations with quality and children's experiences. *Early Childhood Research Quarterly*, 18, 65-103.
- Work, B. (Eds.). (2002). *Learning through the eyes of a child: A guide to best teaching practices in early education*. Raleigh, NC: North Carolina State Dept. of Public Instruction, Early Childhood Section. (ERIC Document Reproduction Service No. ED472193)
- Youngquist, J. & Pataray-Ching, J. (2004). Revisiting "play": analyzing and articulating acts of inquiry. *Early Childhood Education Journal*, 31 (3), 171-178.

## Appendix A

### Overview of the Subscales of Kaohsiung City Assessment Instrument, National Association for Education of Young Children Assessment Instrument, and Early Childhood Environment Rating Scale-Revised Edition (1998)

Kaohsiung City Assessment Instrument (2002)	National Association for Education of Young Children Assessment Instrument (1998)	Early Childhood Environment Rating Scale-Revised Edition (1998)
I. Administrative Management	A. Interactions between teachers and children	A. Space and Furnishing
A. Registration, space and number of children	B. Curriculum	1. Indoor space
B. Administrative management	C. Relationships between teachers and families	2. Furniture for routine care, play and learning
C. Human resources and management	D. Staff qualifications and development	3. Furnishings for relaxation and comfort
D. Miscellaneous and fiscal management	E. Administration	4. Room arrangement for play
E. Administration of early childhood education/care	F. Staffing	5. Space for privacy
	G. Physical environment	6. Child-related display
II. Early Childhood Education/Care	H. Health and safety	7. Space for gross motor play
A. Environmental plan and safe Management	I. Nutrition and Food Service	8. Gross motor equipment
B. Practicing affairs of early childhood education/care	J. Evaluation	B. Personal Care Routines
a. Caregivers' professional capabilities and serving quality		9. Greeting/ departing
b. Activities' design and operation of early		10. Meals/ snacks
		11. Nap/rest
		12. Toileting/ diapering
		13. Health practices
		14. Safety practices
		C. Language-Reasoning
		15. Books and pictures
		16. Encouraging children to communicate

---

childhood education/care	17. Using language to develop reasoning skills
c. Young children's learning and counseling	18. Informal use of Language
d. Life education and care	D. Activities
e. Family and community service	19. Fine motor
	20. Art
	21. Music/movement
	22. Blocks
	23. Sand/water
	24. Dramatic play
	25. Nature/science
	26. Math/number
	27. Use of TV, video, and/ or computers
	28. Promoting acceptance of diversity
III. Health and Safety	E. Interaction
A. Health record	29. Supervision of gross motor activities
B. Health lesson	30. General supervision of children (other than gross motor)
C. Nutrition and food service	31. Discipline
D. Health equipment	32. Staff-child interactions
E. Sick and incidents	33. Interactions among children
	F. Program Structure
	34. Schedule
	35. Free play
	36. Group time
	37. Provisions for children with disabilities
	G. Parents and Staff
	38. Provisions for

---

- 
- parents
  - 39. Provisions for personal needs of staff
  - 40. Provision for professional needs of staff
  - 41. Staff interaction and cooperation
  - 42. Supervision and evaluation of staff
  - 43. Opportunities for professional growth
-

## Appendix B

### A Comparison of Subscales: Kaohsiung City Assessment Instrument, National Association for Education of Young Children Assessment Instrument, and Early Childhood Environment Rating Scale-Revised Edition (1998)

Kaohsiung City Assessment Instrument (2002)	N A E Y C Assessment Instrument (1998)	E C E R S-Revised Edition (1998)
According to the people who have responsibilities in the nursery school: the administrators, teachers, nurses and kitchen staff	According to the people who accept the benefits in the nursery school: children, parents (families), teachers (staff) and directors	According to factors that are related to the characteristics of structural quality and process dimensions
<u>Administrators</u> I. Administrative Management	<u>Children</u> A. Interactions among Teachers and Children B. Curriculum G. Physical Environment H. Health and Safety I. Nutrition and Food Service J. Evaluation	<u>Structural Quality</u> A. Space and Furnishing C. Book and pictures within Language-Reasoning D. Activities F. Program Structure
<u>Teachers</u> II. Early Childhood Education/Care		
<u>Nurses, Kitchen &amp; Cleaning Staff</u> III. Health and Safety	<u>Parents (Families)</u> C. Relationships among Teachers and Families	<u>Processes Quality</u> B. Personal Care Routines C. Language-Reasoning E. Interaction G. Parents and Staff
	<u>Teachers (Staff) &amp; Directors</u> D. Staff Qualifications and Development E. Administration F. Staffing G. Physical Environment J. Evaluation	



## Appendix C

### A Comparison of Items within the Early Childhood Education/Care in Assessment Instruments Matrix

Kaohsiung City Assessment Instrument (2002)		National Association for Education of Young Children Assessment Instrument (1998)	Early Childhood Environment Rating Scale-Revised Edition (1998)
<b>A. Environmental Plan and Safe Management</b>			
1	The building and space are designed particularly for young children.	Classroom observations—Physical Environment G-3. Space is arranged to facilitate a variety of activities for each age group.	Space and Furnishings 1.5.1. Ample indoor space that allows children and adults to move around freely.
2	a. The indoor and outdoor floor coverings, and the hallways do not cause tripping hazards. b. The floor of indoor and outdoor, and hallways have multiple uses.	Classroom observations—Health and Safety H-18c. Floor coverings do not cause tripping hazards.	Space and Furnishings 1.3.4. Space is reasonably clean and well maintained.
3	a. Electrical outlets are safe (covered with protective caps).	Classroom observations—Health and Safety H-18b. Electrical outlets are covered with protective caps.	
	b. Shelves and tables are safe (no sharp edges).	Classroom observations—Health and Safety H-15a. The building, play yard, and all equipment are maintained in safe, clean condition and in good repair.	Space and Furnishings 2.5.2. All furniture is sturdy and in good repair.
	c. Walls are safe (such as soft pad or no rusty nails).		

4	Materials are cleaned and washed 3 times per month.	Administrator reports— Health and Safety H-13b. Infants' equipment is washed and disinfected at least twice a week. Toys that are mouthed are washed daily.	Space and Furnishings 3.5.3. Most soft furnishings are clean and in good repair.
5	Individual cabinet is provided for each child's belongings.	Classroom observations— Physical Environment G-5. Individual space is provided for each child's belongings.	
6	The materials in the resource room are neatly sorted by different categories.		
7	a. Shelves and tables are set up creatively. b. The arrangement of shelves and tables must conform to children's activities		Space and Furnishings 2.5.1. Most furniture is child sized. 2.7.1. Routine care furniture is convenient to use.
8	Environmental setting conforms to the theme of early childhood education/care activities.		
9	About 40 kinds of age-appropriate materials are available for children indoors and outdoors.	Classroom observations— Physical Environment G-4. A variety of age-appropriate materials and equipment are available for children indoors and outdoors.	Activities 19.5.1. Many developmentally appropriate fine motor materials of each type accessible for a substantial portion of the day.
10	a. Teachers design creative materials that are related to the theme of early childhood education/care activities.		

	b. Teachers need to collect creative materials that are related to the theme of early childhood education/care activities.		Activities 19.5.3. Materials on different levels of difficulty accessible.
11	About 20 types of age-appropriate gross motor equipment are available for children at school.	Classroom observations— Physical Environment G-9a. A variety of activities can go on outdoors throughout the year. Variety of age-appropriate equipment such as for crawling, pulling up to stand, riding, climbing, balancing, individual play.	Space and Furnishings 8.5.1. There is enough gross motor equipment so that children have access without a long wait.
12	About 150 books, and 2 books for each additional child are related to early childhood education/care that is accessible during the school day.	Classroom observations— Curriculum B-5d. Developmentally appropriate materials and equipment are available for preschoolers (picture books).	Language-Reasoning 15.5.1. A wide selection of books is accessible for a substantial portion of the day.
13	All gross motor equipment is in good repaired and in full used.	Classroom observations— Health and Safety H-19b. Climbing equipment, swings, and large pieces of furniture are securely anchored.	Space and Furnishings 8.3.2. Equipment is generally in good repair.
14	a. A wide selection of children's books is available and in good repair.		Language-Reasoning 15.5.1. A wide selection of books is accessible for a substantial portion of the day.
	b. Children's books are stored on open shelves for children's access.		Language-Reasoning 15.5.3. Books are organized in a reading center.

B. Practicing Affairs of Early Childhood Education/Care			
a) Caregivers' Professional Capabilities and Serving Quality			
15	a. Staff show professional capabilities such as kindness and gentleness.	Classroom observations— Interactions among Teachers and Children A-3a. Teachers speak with children in a friendly, positive, courteous manner.	Interaction 32.5.1. Staff show warmth through appropriate physical contact.
	b. Staff's manner of dress will NOT interrupt their work with children.		
16	a. Teachers positively interact with children.	Classroom observations— Interactions among Teachers and Children A-3a. Teachers speak with children in a friendly, positive, courteous manner.	Interaction 30.5.1. Careful supervision of all children adjusted appropriately for different ages and abilities.
	b. Teachers frequently interact with children.	Classroom observations— Interactions among Teachers and Children A-1. Teachers interact frequently with children showing affection, interest, and respect.	Language-Reasoning 18.5.1. Many staff-child conversations during free play and routines.
	c. Teachers respect children while interacting with them.		Interaction 32.7.2. Staff encourage the development of mutual respect between children and adults.
17	During the activities, teachers use active body motions.	Classroom observations— Interactions among Teachers and Children A-1. Teachers interact frequently with children showing affection, interest, and respect.	Interaction 29.5.2. Most staff-child interactions are pleasant and helpful.
18	a. Teachers pay attention to each child's emotion.		Interaction 30.5.2. Staff give children help and encouragement when needed.

	b. Teachers give children support and encouragement.	Classroom observations— Interactions among Teachers and Children A-8. Teachers support children’s emotional development, assisting them to be comfortable, relaxed, happy, and involved in play and other activities.	Interaction 32.5.3. Staff respond sympathetically to children who are upset, hurt, or angry.
19	a. Curriculum is planned flexibly according to individual need.	Classroom observations— Curriculum B-10. Teachers are flexible enough to change planned or routine activities.	
	b. Curriculum has been discussed among teachers.	Administrator reports— Administration E-10b. Staff plan and consult together.	
20	The teacher can flexibly adjust the process and content of early childhood education/care activities.	Classroom observations— Interactions among Teachers and Children A-10. Teachers use a variety of teaching strategies to enhance children’s learning and development throughout the day.	Activities 19.7.1. Materials rotated to maintain interest (e.g., Materials that are no longer of interest put away, different materials brought out).
21	a. Teachers prepare teaching resources before class.		
	b. Teachers make full use of teaching resources.		Parents and Staff 43.5.4. Some professional resource materials available on-site.
22	a. The teacher should learn actively.		
	b. Teachers self-reflect on professional attitudes and growth.	Administrator reports— Staff Qualifications and Development	Parents and Staff 42.7.1. Staff participate in self-evaluation.

		D-4a. The program provides regular opportunities for staff to participate in ongoing professional development to improve skills in working with children and families or to prepare them to assume more responsible positions.	
<hr/>			
B. Practicing Affairs of Early Childhood Education/Care			
b) Activities' Design and Operation of Early Childhood Education/Care			
23	Early childhood education/care meetings are held at least twice monthly.	Administrator reports— Administration E-10c. Regular staff meetings are held for staff to consult on program planning, to plan for implementing and attaining goals, to plan for individual children, and to discuss program and working conditions.	Parents and Staff 43.5.3. Monthly staff meetings held that include staff development activities.
24	The school regulates the goal of early childhood education/care that conforms to children's development.	Administrator reports— Curriculum B-1. The program has a written statement of its philosophy and goals for children that is available to staff and families.	
25	a. Use multiple materials that are appropriate for children's development.	Classroom observations— Curriculum B-5d. Developmentally appropriate materials and equipment are available for preschoolers.	

	b. Use self-designed activities that are appropriate for children's development.	Administrator reports— Curriculum B-2a. The program has written curriculum plans based on knowledge of child development and assessment of individual needs and interests.	
26	Create a learning climate that attracts children to actively attend the activities.	Classroom observations— Interactions among Teachers and Children A-7. Overall sound of group is pleasant most of time. E.g.: excitement or busy.	Interaction 29.7.2. Staff help with resources to enhance play.
27	a. Adopt early childhood education/care activities that are appropriate for children's development and needs.	Classroom observations— Curriculum B-5a. Materials and equipment appropriate to the age group are provided that project diverse racial, gender, and age attributes.	Activities 19.5.1. Many developmentally appropriate fine motor materials of each type accessible for a substantial portion of the day.
	b. Teachers conduct longitudinal transitions between early childhood education/care activities.	Classroom observations— Curriculum B-9. Teachers conduct smooth and unregimented transitions between activities.	
28	Integrate early childhood education/care activities into children's development and learning fields.	Classroom observations— Curriculum B-7b. Develop social skills. B-7d. Encourage language and literacy development. B-7e. Enhance physical development and skills.	
29	a. Conduct early childhood education/care activities fluently.		Program Structure 34.7.1. Smooth transitions between daily events.

	b. Conduct early childhood education/care activities that attract children and are appropriate for the children's development.	Administrator reports— Curriculum B-3a. Teachers have clearly defined goals for individual children that guide curriculum planning.	Activities 19.7.1. Materials rotated to maintain interest (e.g., materials that are no longer of interest put away, different materials brought out).
30	More than one option for early childhood education/care activities by group (individual, small group, or large group) is available to children most of the day.	Classroom observations— Curriculum B-4d. More than one option for grouping (individual, small group, or large group) is available to children most of the day.	Program Structure 36.7.1. Different groupings provide a change of pace throughout the day.
31	Choosing the field trip according to the theme of a unit or the activities.		
32	a. Document regularly a diary of early childhood education/care.		
	b. Observe early childhood education/care activities regularly.		
	c. Assess early childhood education/care activities regularly.		
33	a. Literacy environment is set up within a whole language approach.	Classroom observations— Curriculum B-7d. Encourage language and literacy development. Encourage children's emerging interest in writing.	
	b. Not teaching of writing in nursery schools.		
	c. Not teaching Chinese phonetic signs (Pin-In) in nursery schools.		
34	Talent classes are prohibited (e.g., English lessons, clay lessons, and music lessons).		



B. Practicing Affairs of Early Childhood Education/Care		
c) Young Children's Learning and Counseling		
35	a. Children can actively participate in learning.	Program Structure 34.5.2. A variety of play activities occur each day, some of which are teacher directed and some child initiated.
	b. During the activity time, children are allowed to talk or discuss things.	Language-Reasoning 17.5.2. Children are encouraged to talk through or explain their reasoning when solving problems.
	c. During the activity time, children are free to choose activities.	Classroom observations— Curriculum B-8. Teachers provide materials and time for children to select their own activities during the day.
36	Regular descriptions of particular child cases.	Administrator reports— Evaluation J-3. Individual descriptions of children's development and learning are written and compiled as a basis for planning appropriate learning activities.
37	a. Regular writing in the parents' contact book to share information to both staff and parents.	Administrator reports— Relationships among Teachers and Families C-5a. A verbal or written system is established for sharing information to both staff and parents on the day-to-day happenings of children.
	b. Parents response in parents' contact books.	

38	Documenting the descriptions of children's development and learning that include cognitive, social, emotional, and physical data.	Administrator reports— Relationships among Teachers and Families C-5b Changes in a child's physical or emotional state are reported to parents regularly.	
39	a. Informing the counseling organization when the school has children with special needs.		
	b. Providing counseling information to parents who have children with special needs.	Administrator reports— Curriculum B-3b. The program is designed to be inclusive of all children, including those with identified disabilities and special learning and developmental needs.	Program Structure 37.3.1. Staff have information from available assessments.
	c. For the children with special needs, teachers follow through with activities recommended by professionals.		Program Structure 37.5.1. Staff follow through with activities and interactions recommended by other professionals.
40	Regular and continuous descriptions are written assessing children's development and learning.	Administrator reports— Evaluation J-3. Individual descriptions of children's development and learning are written and compiled as a basis for planning appropriate learning activities, as a means of facilitating optimal development of each child.	
41	Children's works are displayed at the children's eye level.		Space and Furnishings 6.5.3. Many items are displayed at the child's eye level.

B. Practicing Affairs of Early Childhood Education/Care			
d) Life Education and Care			
42	a. Setting schedule based on children's development.	Classroom observations— Curriculum B-4b. The schedule provides for alternating periods of quiet and active play.	Program Structure 34.7.2. Variations made in schedule to meet individual needs.
	b. A balance of indoor activities and outdoor activities is provided in the daily schedule.	Classroom observations— Curriculum B-4c. A balance of large-muscle/small-muscle activities is provided in the daily schedule.	Program Structure 34.5.1. Schedule provides balance of structure and flexibility.
43	a. Expectations for discipline are appropriate for age and developmental level of children.	Classroom observations— Interactions among Teachers and Children A-6a. Teachers facilitate the development of responsibility, self-regulation, and self-control in children.	Interaction 31.3.3. Expectations for behavior are largely appropriate for age and developmental level of children.
	b. Discipline is suitable for environment.	Classroom observations— Interactions among Teachers and Children A-9. Teachers recognize and encourage prosocial behaviors among children, such as cooperation and taking turns.	Interaction 31.7.1. Staff actively involve children in solving their conflicts and problems.
44	Teachers design activities so that children learn valuable customs and attitudes.	Classroom observations— Curriculum B-7f. Encourage and demonstrate sound health, safety, and nutritional practices.	Interaction 31.7.2. Staff use activities to help children understand social skills.
45	Promptly remind and assist children's in maintaining appropriate living and independent skills.	Classroom observations— Curriculum B-11 Routine tasks are incorporated into the program as a means of furthering children's	Personal Care Routines 13.7.1. Children taught to manage health practices independently.

		learning, self-help, and social skills.	
46	Every semester, staff design activities related to living education.	Classroom observations— Curriculum B-7f. Encourage and demonstrate sound health, safety, and nutritional practices.	
47	Every semester, staff practice evacuation procedures with children.	Administrator reports— Health and Safety H-21a. Staff and volunteers are familiar with primary and secondary evacuation routes and practice evacuation procedures monthly with children.	Personal Care Routines 14.5.2. Staff explain reasons for safety rules to children.
B. Practicing Affairs of Early Childhood Education/Care			
e) Family and Community Service			
48	a. Teachers visit families regularly at home.		
	b. The teachers phone families regularly.	Administrator reports— Relationships among Teachers and Families C-9b. Communication among teachers and families is frequent. (Frequent friendly notes/telephone calls are used to communicate if parents do not bring their children to the program)	
	c. Teachers record dates and details about the home visits or phone calls.		
49	Proper parental education plans are provided.		
50	Regularly provide parental education information such as parental articles, community resources, weekly or monthly	Administrator reports— Relationships among Teachers and Families C-1a. A written description of the program's	Parents and Staff 38.5.2. Parents made aware of philosophy and approaches practiced (E.g., Parent

	newsletters.	philosophy is available to families. C-1b. Written operating policies and procedures are available to families. C-7. Families are informed about the program and the curriculum and about policy or regulatory changes and other critical issues that could potentially affect the program or the early childhood profession through newsletters, bulletin boards, and other appropriate means.	handbook, discipline policy, descriptions of activities). 38.5.3. Much sharing of child-related information between parents and staff.
51	Regular and continuous organization of parental education conferences such as expert or scholarly speeches on parental education and early childhood information sharing.	Administrator reports— Relationships among Teachers and Families C-2. A process has been developed for orienting children and families to the program that may include a pre-enrollment visit or family orientation meeting.	
52	Regular and continuous organization of social events with families such as field trips, parties, and games.		
53	a. Parents are encouraged to become involved in early childhood education/care activities in the school.	Administrator reports— Relationships among Teachers and Families C-4b. Parents and other family members are encouraged to be involved in the program in various ways, taking into consideration working parents and those with little spare time.	Parents and Staff 38.5.4. Variety of alternatives used to encourage family involvement in children's program.
	b. Parents are invited to be volunteers.		

54	a. Parent observations of early childhood education/care activities are organized every semester.		
	b. Parents are welcome to observe the program at all times.	Administrator reports— Relationships among Teachers and Families C-4a. Family members are welcome visitors at all times.	Parents and Staff 38.5.1. Parents urged to observe child's group prior to enrollment.
55	The school encourages and establishes active parent organization.		
56	Parental growth activities are conducted regularly (e.g., parents reading meeting or parent efficient group).		
57	a. Consulting service is provided to parents.	Administrator reports— Relationships among Teachers and Families C-11. Policies ensure that staff and parents have an effective way to negotiate difficulties and differences that arise in their interactions.	Parents and Staff 38.7.2. Parents referred to other professionals when needed.
	b. A schedule or telephone line exists for parent consultation.		
58	a. Teachers are familiar with each child's family structures.	Administrator reports— Relationships among Teachers and Families C-9d. Teachers show acceptance of various family structures and cultural perspectives.	
	b. Teachers regularly interact and have contact with parents.		Parents and Staff 38.5.3. Much sharing of child-related information between parents and staff.
59	Staff make appropriate use of and integrate community	Administrator reports— Relationships among	

---

resources, parent resources, and government resources.	Teachers and Families C-10a. Administrators and teachers are familiar with and make appropriate use of community resources.
---	---

---

## Appendix D

### 2002 Kaohsiung City Nursery School Assessment Outcome

Government Administrative District	Registered Nursery Schools	Excellent Schools	Good Schools	Need Supervision Schools	Need Improvement Schools
Sanmin 三民區	32	3	12	10	7
Siaogang 小港區	25	0	8	12	5
Zuoying 左營區	24	2	10	7	5
Cianjhenand 前鎮區	22	6	9	5	2
Lingya 苓雅區	21	2	9	7	3
Sinsing 新興區	4	0	1	3	0
Nanzih 楠梓區	20	1	12	5	2
Gushan 鼓山區	10	0	7	3	0
Yancheng 鹽埕區	2	0	2	0	0
Cijin 旗津區	2	0	2	0	0
Cianjin 前金區	2	0	0	2	0
Total	164	14	72	54	24

- The update data was from the Social Affaires Bureau of Kaohsiung City Government Report Online in 2004.
- 186 nursery schools were mandatory to participate in the 2002 Kaohsiung City Nursery Schools Assessment; 22 nursery schools either had a change in the owner or address, or had been closed in 2004.
- The numbers of excellent, good, need supervision schools, and need improvement schools are according to the 2002 Kaohsiung City nursery school assessment.



## Appendix E

### Sampling of Kaohsiung City Registered Nursery School

Government Administrative District	Registered Nursery School	Percentage	Total School Sample	Good School Sample	Need Supervision School Sample	Total of Sample
			$40 \times 0.2$			$(4+4) \times 2$
Sanmin 三民區	32	19.5	= 8	4	4	=16
Siaogang 小港區	25	15.2	6	3	3	12
Zuoying 左營區	24	14.6	6	3	3	12
Cianjhenand 前鎮區	22	13.4	6	3	3	12
Lingya 苓雅區	21	12.8	6	3	3	12
Sinsing 新興區	4	2.4	0	0	0	0
Nanzih 楠梓區	20	12.2	5	3	2	10
Gushan 鼓山區	10	6.1	2	1	1	4
Yancheng 鹽埕區	2	1.2	0	0	0	0
Cijin 旗津區	2	1.2	0	0	0	0
Cianjin 前金區	2	1.2	0	0	0	0
Total	164	100	39	20	19	78

- The number of registered nursery schools in each administrative district is recorded from the 2004 Social Affairs Bureau of Kaohsiung City Government Report Online.
- Good school samples are included excellent and good schools; need supervision school samples are included need supervision schools and need improvement schools in the 2002 Kaohsiung City Nursery School Assessment.
- Percentage of the Number of Nursery Schools in Each Administrative District = Number of Nursery Schools in Each Administrative District ÷ Total Number of Nursery Schools.
- Number of School Samples in Each Administrative District = Assuming 40 samples × Percentage of the Number of Nursery Schools in Each Administrative District.
- Number of Participant in Each District = School Samples × 2 (one director & one teacher)

## Appendix F

### Questionnaires- The Nursery School Assessment Instrument: A Survey of Nursery School Directors and Teachers

#### Part I: Background Questions

Directions: The general background questions are as follows. Please respond to each question by either circling the letter corresponding to your response or providing the information requested. All information you are providing will be confidential.

<p>A. Personal information</p> <ol style="list-style-type: none"><li>1. Have you been assessed in the 2002 Kaohsiung City Nursery School Assessment? Yes ____; No ____ (stop answer the following questions)</li><li>2. Age _____ years old</li><li>3. Position<ol style="list-style-type: none"><li>a. Director</li><li>b. Teacher</li></ol></li><li>4. Highest level of education<ol style="list-style-type: none"><li>a. High school degree</li><li>b. Associate degree</li><li>c. Bachelor degree</li><li>d. Master's degree</li><li>e. Other:_____</li></ol></li><li>5. Academic area in which you obtained your highest degree<ol style="list-style-type: none"><li>a. Early childhood education</li><li>b. Early childhood education/care</li><li>c. Elementary education</li><li>d. Nursery</li><li>e. Other:_____</li></ol></li><li>6. How long have you been a director in a nursery school? ____ years</li><li>7. How long have you been a teacher in a nursery school? ____ years</li></ol>
---

**B. School information**

8. What approach has been adopted by your program? Please circle the one that you most use.
- a. Thematic-Unit Approach
  - b. Learning Center Approach
  - c. Project Approach
  - d. High/Scope Approach
  - e. Montessori Approach
  - f. Other \_\_\_\_\_
9. How many children are in your school currently? \_\_\_\_ children (please provide the number of children in your school)
- 10-1. How many teachers are in your school currently? \_\_\_\_\_ teachers
- 10-2. How many staff members (other than teachers) are in your school currently? \_\_\_\_\_ staff (teachers not include)

Part II: Opinions on an assessment instrument relating to early childhood education/care content

**Direction:** The following assessment instrument relating to early children education/care is the instrument used to assess your school in 2002. Two sections of opinions exist about instruments for assessing early childhood education/care in nursery schools.

**The first section** “Formally Important”- please indicate what you think the governmental standard are for evaluation of the nursery schools

**The second section** “Informally Important”- please indicate what you actually think actually exists in your schools.

**In addition**, “Your Opinion”- is for you to state your personal thoughts according to each question.

Please answer each question according to your practical experience by either circling the letter corresponding to your response or providing the information requested. All of the information you are providing will be held in the strictest confidence.

A. Environmental Plan and Safe Management		Formally Important		Informally Important	
1	The building and space are designed particularly for young children..... Your opinion:	Agree	Disagree	Agree	Disagree
2	a. The indoor and outdoor floor coverings, and the hallways do not cause tripping hazards..... b. The floor of indoor and outdoor, and hallways have multiple uses..... Your opinion:	Agree	Disagree	Agree	Disagree
3	a. Electrical outlets are safe (covered with protective caps)..... b. Shelves and tables are safe (no sharp edges)..... c. Walls are safe (soft pads or no rusty nails)..... Your opinion:	Agree	Disagree	Agree	Disagree

4	Individual cabinet is provided for each child's belongings..... Your opinion:	Agree	Disagree	Agree	Disagree
5	The materials in the resource room are neatly sorted by different categories..... Your opinion:	Agree	Disagree	Agree	Disagree
6	a. Shelves and tables are set up creatively.. b. The arrangement of shelves and tables must conform to children's activities.... Your opinion:	Agree	Disagree	Agree	Disagree
7	The environmental setting conforms to the theme of early childhood education/care activities..... Your opinion:	Agree	Disagree	Agree	Disagree
8	a. Teachers design creative materials that are related to the theme of early childhood education/care activities..... b. Teachers need to collect creative materials that are related to the theme of early childhood education/care activities..... Your opinion:	Agree	Disagree	Agree	Disagree
9	All gross motor equipment is in good repair and in full use..... Your opinion:	Agree	Disagree	Agree	Disagree
10	a. A wide selection of children's books is available and in good repair..... b. Children's books are stored on open shelves for children's access..... Your opinions:	Agree	Disagree	Agree	Disagree

11	How many times should the materials be cleaned and washed?
<ul style="list-style-type: none"> <li>a. 3 times per month or more</li> <li>b. 2 times per month</li> <li>c. 1 time per month</li> <li>d. 1 time per semester</li> <li>e. Other _____</li> </ul>	
Your opinion:	
12	During the operation of early childhood education/care activities, how many kinds of materials should be offered at the same time?
<ul style="list-style-type: none"> <li>a. 40 kinds of materials or more</li> <li>b. 20~39 kinds of materials</li> <li>c. 10~19 kinds of materials</li> <li>d. The number of materials should be based on the number of children in the class; the ratio should be ____ children: ____ kinds of material.</li> <li>e. Other suggestions _____</li> </ul>	
Your opinion:	
13	During the operation of early childhood education/care activities, how many types of gross motor equipment should a nursery school offer at the same time?
<ul style="list-style-type: none"> <li>a. 30 types of gross motor equipment or more</li> <li>b. 20~29 types of gross motor equipment</li> <li>c. 10~19 types of gross motor equipment</li> <li>d. The amount of equipment should be based on how many children in the class; the ratio should be ____ children : ____ types of gross motor equipment.</li> <li>e. Other suggestions _____</li> </ul>	
Your opinion:	
14	How many children's picture (story) books should a nursery school have?
<ul style="list-style-type: none"> <li>a. 200 books or more</li> <li>b. 100~199 books</li> <li>c. 99 books or less</li> <li>d. The number of books should depend on the number of children: The ratio should be ____ children : ____ books.</li> <li>e. Other suggestions _____</li> </ul>	
Your opinion:	

B. Practical Affairs of Early Childhood Education/Care					
a) Caregivers' Professional Capability and Service Quality		Formally Important		Informally Important	
15	a. Staff show professional capabilities such as kindness and gentleness.....	Agree	Disagree	Agree	Disagree
	b. Staff's manner of dress will NOT interrupt their work with children....	Agree	Disagree	Agree	Disagree
	Your opinions:				
16	a. Teachers positively interact with children.....	Agree	Disagree	Agree	Disagree
	b. Teachers frequently interact with children.....	Agree	Disagree	Agree	Disagree
	c. Teachers respect children while interacting with them.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
17	During the activities, teachers use active body motions.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
18	a. Teachers pay attention to each child's emotion.....	Agree	Disagree	Agree	Disagree
	b. Teachers give children support and encouragement.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
19	a. Curriculum is planned flexibly according to individual need.....	Agree	Disagree	Agree	Disagree
	b. Curriculum has been discussed among teachers.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
20	The teacher can flexibly adjust the process and content of early childhood education/care activities.....	Agree	Disagree	Agree	Disagree

Your opinions:				
21	a. Teachers prepare teaching resources before class.....	Agree	Disagree	Agree Disagree
	b. Teachers make full use of teaching resources.....	Agree	Disagree	Agree Disagree
	Your opinions:			
22	a. Teachers should learn actively.....	Agree	Disagree	Agree Disagree
	b. Teachers self-reflect on professional capabilities and growth.....	Agree	Disagree	Agree Disagree
	c. Teachers attend in-service training...	Agree	Disagree	Agree Disagree
	Your opinions:			

B. Practicing Early Childhood Education/Care					
b) Activities' Design and Operation in Early Childhood Education/Care		Formally Important		Informally Important	
23	The school should regulate the goal of early childhood education/care that conforms to the children's development	Agree	Disagree	Agree	Disagree
	Your opinions:				
24	a. Use multiple materials that are appropriate for children's development.....	Agree	Disagree	Agree	Disagree
	b. Use self-designed activities that are appropriate for children's development .....	Agree	Disagree	Agree	Disagree
	c. Teachers cannot adopt activities from purchased, packaged, instructional materials.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
25	Create a learning climate that attracts children to actively attend the activities	Agree	Disagree	Agree	Disagree



Your opinions:					
26	a. Adopt early childhood education/care activities that are appropriate for children's development and needs.....	Agree	Disagree	Agree	Disagree
	b. Teachers conduct longitudinal transitions between early childhood education/care activities.....	Agree	Disagree	Agree	Disagree
Your opinions:					
27	Integrate early childhood education/care activities into children's development and learning fields.....	Agree	Disagree	Agree	Disagree
Your opinions:					
28	a. Conduct early childhood education/care activities with fluency.....	Agree	Disagree	Agree	Disagree
	b. Conduct early childhood education/care activities that attract children and are appropriate for the children's development.....	Agree	Disagree	Agree	Disagree
Your opinions:					
29	More than one option for early childhood education/care activities by group (individual, small group, or large group) is available to children most of the day....	Agree	Disagree	Agree	Disagree
Your opinions:					
30	Choosing the field trip according to the theme of a unit or the activities.....	Agree	Disagree	Agree	Disagree
Your opinions:					
31	a. Document regularly a diary of early childhood education/care.....	Agree	Disagree	Agree	Disagree
	b. Observe early childhood education/care activities regularly.....	Agree	Disagree	Agree	Disagree
	c. Assess early childhood education/care activities regularly.....	Agree	Disagree	Agree	Disagree

Your opinions:			
32	a. Literacy environment is set up within a whole language approach..... b. Not teaching of writing in nursery schools..... c. Not teaching of Chinese phonetic signs in nursery schools.....	Agree   Disagree Agree   Disagree Agree   Disagree	Agree   Disagree Agree   Disagree Agree   Disagree
If you disagree with these statements, please state your opinions.			
33	a. Talent classes are prohibited..... b. The talent classes are no extra charge to parents.....	Agree   Disagree Agree   Disagree	Agree   Disagree Agree   Disagree
Your opinions:			
34	How often are the early childhood education/care meetings held? a. 2 meetings or more per month b. 1 meeting per month c. 2~4 meetings per semester (____ month in a semester) d. 1 meeting or less per semester e. Other _____		
Your opinions:			

B. Practicing Early Childhood Education/Care			
c) Young Children's Learning and Counseling		Formally Important	Informally Important
35	a. Children can actively participate in learning..... b. During the activity time, children are allowed to talk or discuss things..... c. During the activity time, children are free to choose activities.....	Agree   Disagree Agree   Disagree Agree   Disagree	Agree   Disagree Agree   Disagree Agree   Disagree
Your opinions:			
36	Regular descriptions of special children's cases.....	Agree   Disagree	Agree   Disagree

Your opinions:					
37	a. Regularly writing in the parents' contact books.....	Agree	Disagree	Agree	Disagree
	b. Parents response in parents' contact books.....	Agree	Disagree	Agree	Disagree
Your opinions:					
38	Documenting the descriptions of children's development and learning that include cognitive, social, emotional, and physical data.....	Agree	Disagree	Agree	Disagree
Your opinions:					
39	a. Informing the counseling organization when the school has children with special needs.....	Agree	Disagree	Agree	Disagree
	b. Providing counseling information to parents who have children with special needs.....	Agree	Disagree	Agree	Disagree
	c. For the children with special needs, teachers follow through with activities recommended by professionals.....	Agree	Disagree	Agree	Disagree
Your opinions:					
40	Regular and continuous descriptions are written assessing children's development and learning.....	Agree	Disagree	Agree	Disagree
Your opinions:					
41	Children's works are displayed at children's eye level.....	Agree	Disagree	Agree	Disagree
Your opinions:					

B. Practicing Early Childhood Education/Care		Formally Important	Informally Important		
d) Life education and care					
42	a. Setting a schedule based on children's development.....	Agree	Disagree	Agree	Disagree

	b. A balance of indoor and outdoor activities is provided in the daily schedule.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
43	a. Expectations for discipline are appropriate for the age and developmental level of children.....	Agree	Disagree	Agree	Disagree
	b. Discipline is suitable for environment...	Agree	Disagree	Agree	Disagree
	Your opinions:				
44	Teachers design activities so that children learn valuable customs and attitudes.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
45	Promptly remind and assist children's in maintaining appropriate living and independent skills.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
46	Every semester, staff design activities related to living education.....	Agree	Disagree	Agree	Disagree
	Your opinions:				
47	Every semester, staff practice evacuation procedures with children.....	Agree	Disagree	Agree	Disagree
	Your opinions:				

B. Practicing Early Childhood Education/Care		Formally Important		Informally Important	
e) Family and Community Service					
48	a. Teachers visit families regularly at home.....	Agree	Disagree	Agree	Disagree
	b. Teachers phone families regularly.....	Agree	Disagree	Agree	Disagree
	c. Teachers record dates and details about the home visits or phone calls.....	Agree	Disagree	Agree	Disagree

Your opinions:			
49	Proper parental education plans are <u>provided and carried out.....</u> Your opinions:	Agree   Disagree	Agree   Disagree
50	Regularly provide parental education information such as parental articles, community resources, weekly or monthly <u>newsletters.....</u> Your opinions:	Agree   Disagree	Agree   Disagree
51	Regularly and continually organize parental education conferences such as expert or scholarly speeches on parental education and early childhood information <u>sharing.....</u> Your opinions:	Agree   Disagree	Agree   Disagree
52	Regularly and continuously organize social events with families such as field <u>trips, parties, and games.....</u> Your opinions:	Agree   Disagree	Agree   Disagree
53	a. Parents are encouraged to become involved in early childhood education/ care activities in the school..... b. Parents are invited to be volunteers..... Your opinions:	Agree   Disagree Agree   Disagree	Agree   Disagree Agree   Disagree
54	a. Parent observations of early childhood education/care activities are organized every semester..... b. Parents are welcome to observe the <u>program all the time.....</u> Your opinions:	Agree   Disagree Agree   Disagree	Agree   Disagree Agree   Disagree
55	School actively encourage and establish <u>parent organizations.....</u>	Agree   Disagree	Agree   Disagree

Your opinions:					
56	Parental growth activities are conducted regularly (e.g., parents' reading meeting or parent efficiency group).....	Agree	Disagree	Agree	Disagree
Your opinions:					
57	a. Consulting service is provided to parents.....	Agree	Disagree	Agree	Disagree
	b. A schedule or telephone line exists for parents' consultation.....	Agree	Disagree	Agree	Disagree
Your opinions:					
58	a. The records show that teachers are familiar with each child's family structures.....	Agree	Disagree	Agree	Disagree
	b. Teachers regularly interact and have contact with parents.....	Agree	Disagree	Agree	Disagree
Your opinions:					
59	Staff make appropriate use of and integrate community resources, parent resources, and government resources.....	Agree	Disagree	Agree	Disagree
Your opinions:					
60	From the view of practicality, what should be added in the assessment instrument content?				

Part III: The Assessment Instrument of Early Childhood Education/Care Influence  
Individuals and Nursery Schools

Direction: School assessment usually influences nursery school functions either positively or negatively. According to your practical experience, please answer each question by either circling the letter corresponding to your response or providing the information requested. In addition, each question has a following blank for you to state your opinions. All information you are providing will be confidential.

A range of opinions exists about the instrument used to assess early childhood education/care in nursery schools. Please indicate the extent to which you agree or disagree with each of the following statements by using the scale below:

SA—STRONGLY AGREE  
MA—MILDLY AGREE  
MD—MILDLY DISAGREE  
SD—STRONGLY DISAGREE

A. The influence of the assessment instrument of early childhood education/care individually	
1	<p>The KC assessment instrument improves individual professional growth within early childhood education/care..... SD MD MA SA</p> <p>If you DISAGREE, please state your opinions in detail.</p>
2	<p>The KC assessment instrument of early childhood education/care supervises directors' or teachers' work in the nursery school..... SD MD MA SA</p> <p>If you DISAGREE, please state your opinions in detail.</p>
3	<p>To reach the standard of the KC assessment instrument, I have done good quality work in early childhood education/care..... SD MD MA SA</p> <p>If you do NOT feel that the requirements of the assessment instrument and having done good quality work within early childhood education/care are identical, please state your opinions in detail.</p>
4	<p>The self-designed activities do NOT conform to practical operation within early childhood education/care..... SD MD MA SA</p>

	If you feel that the self-designed activities do NOT conform to the practical operation in the nursery school, please state your opinions in detail.			
5	Regular documentation does NOT conform to practical operations within early childhood education/care.....	SD	MD	MA SA
	If you feel that regular documentation does NOT conform to practical operations in the nursery school, please state your opinions in detail.			
6	Regular family service and parent education do NOT conform to practical operations within early childhood education/care.....	SD	MD	MA SA
	If you feel that parental service does NOT conform to practical operations in the nursery school, please state your opinions in detail.			
7	The KC assessment instrument's requirements influence my daily routine work in the nursery school, such as spending more time on documentation and requiring children to do particular work.....	SD	MD	MA SA
	If you DISAGREE, please provide your opinions in detail.			
8	As a teacher (if you are a director, what would you hope your teachers to be?), I would rather spend more time with children than on regular documentation such as a diary of early childhood education/care, children's developmental record, and parents' contact books.....	SD	MD	MA SA
	If you DISAGREE, please provide your opinions in detail.			
B. The influence of the assessment instrument on early childhood education/care in school				
9	The KC assessment instrument for early childhood education/care builds a referral standard while I operate my			



<u>school.....</u> If the assessment instrument for early childhood education/care is NOT used as an operating standard, please state in detail why it does not work to you.	SD MD MA SA
10 <u>The KC assessment instrument for early childhood education/care improves my school's quality, such as caring for children, and interacting with families.....</u> Describe your opinions on this statement:	SD MD MA SA
11 <u>The KC assessment instrument for early childhood education/care supports my school's efforts for improving staff quality and parents' education.....</u> Describe your opinions on this statement:	SD MD MA SA
12 <u>The KC assessment instrument increases extra school work that is not necessary, such as regular documentation, self-designed activities and parents' activities.....</u> Describe your opinions on this statement:	SD MD MA SA
13 How do you adopt the early childhood education/care activities in your school? a. Teachers in my school design activities by themselves that conform to professional principles. b. To purchase packaged instructional materials that includes a teaching guide, text books and materials. c. Curricula are mostly teachers' self-design, and a few activities are combinations with purchased, packaged, instructional materials. d. Curricula are mostly purchased package materials, and a few activities are combinations with teachers' self-designs. e. Other _____	
14 <u>I would rather adopt purchased, packaged, instructional materials than develop self-designed activities.....</u>	SD MD MA SA

If you DISAGREE with it, please provide your opinions in detail.	
15	Self-designed activities take too much time; purchased, packaged, instructional materials save my time..... SD MD MA SA Describe your opinions on this statement:
16	Purchased, packaged, instructional materials are integrated into different activities..... SD MD MA SA Describe your opinions on this statement:
17	Purchased, packaged, instructional materials are easy to carry out if I follow the teaching guide..... SD MD MA SA Describe your opinions on this statement:
18	Does your school teach children Chinese phonetic signs? a. Yes (please continue to answer question 19-1). b. No (Please go to question 19-2). c. Other _____
19 -1	You teach Chinese phonetic signs (please circle all that apply) a. To meet parents' expectations b. To conform with children's development c. To conform with my school principles d. To conform with my own teaching experience e. To prepare for the transition to elementary school f. Other _____
19 -2	You do NOT teach Chinese phonetic signs (please circle all that apply) a. To meet parents' expectations b. To conform with children's development c. To conform with my school principles d. To conform with my own teaching experience e. To prepare for the transition to elementary school f. To conform with the criteria of nursery school assessment g. Other _____

<p>20 Does your school have activities to teach children how to write?</p> <p>a. Yes (please continue to answer question 21-1).</p> <p>b. No (Please go to question 19-2).</p> <p>c. Other _____</p>
<p>21 You give children writing activities (please circle all that apply):</p> <p>-1</p> <p>a. To meet parents' expectations</p> <p>b. To conform with children's development</p> <p>c. To conform with my school principles</p> <p>d. To conform with my own teaching experience</p> <p>e. To prepare for the transition to elementary school</p> <p>f. Other _____</p>
<p>21 You do NOT give children writing activities (please circle all that apply):</p> <p>-2</p> <p>a. To meet parents' expectations</p> <p>b. To conform with children's development</p> <p>c. To conform with my school principles</p> <p>d. To conform with my own teaching experience</p> <p>e. To conform with the criteria of nursery school assessment</p> <p>f. Other _____</p>
<p>22 How do you feel about the parents' contact books (please circle that mainly apply)?</p> <p>a. It is not necessary; I can talk with parents while they pick up their children or by phone.</p> <p>b. It is not necessary because writing in the books reduces the time I spend with children.</p> <p>c. It is not necessary because _____</p> <p>d. It is necessary for the parents to know how their children are doing in school.</p> <p>e. It is necessary; I can remind the parents what they need to do.</p> <p>f. It is necessary because my school requires me to write in the parents' contact books.</p> <p>g. It is necessary _____</p> <p>h. Other _____</p>
<p>23 Does your school provide parents' contact books?</p> <p>a. Yes (please continue to answer question 24-1).</p> <p>b. No (Please go to question 24-2).</p> <p>c. Other _____</p>

24 -1	You give contact books to parents regularly (please circle all that apply): a. To meet parents' expectations b. To conform with my school principles c. To conform with my own teaching experience d. To improve the teaching quality e. To conform with the criteria of nursery school assessment f. Other _____
24 -2	You do NOT provide parents' contact books (please circle all that apply; then please go to question 28): a. To meet parents' expectations b. To conform with my school principles c. To conform with my own teaching experience d. To improve the teaching quality e. To improve the working quality of teacher f. To reduce the teacher turn-over rate g. Other _____
25	How often do you send the parents' contact books home? a. Every day b. Every week c. Every two weeks d. Every month e. Every semester f. Irregular period g. Other _____
26	When do you usually write in the parents' contact books? a. During whole (small) group time b. During free play in the learning center c. During outside play time d. During children's nap time e. After dismissal f. Teacher in-service day g. Other _____
27	How long do you spend in writing one parent's contact book? _____ minutes

<p>28 How do you feel about documenting the children's development and assessment records regularly (please circle that mainly apply)?</p> <ul style="list-style-type: none"> <li>a. It is not necessary; I know every child's development.</li> <li>b. It is not necessary because the record reduces the time I spend with children.</li> <li>c. It is not necessary because _____</li> <li>d. It is necessary because it reminds me what I should do next for children.</li> <li>e. It is necessary; it could show others how I work with children.</li> <li>f. It is necessary because my school requires me to write these records.</li> <li>g. It is necessary because the criteria of nursery school assessment</li> <li>h. It is necessary because _____</li> <li>i. Other _____</li> </ul>
<p>29 Do you document the children's development and assessment records regularly?</p> <ul style="list-style-type: none"> <li>a. Yes (please continue to answer question 30-1).</li> <li>b. No (Please go to question 30-2).</li> <li>c. Other _____</li> </ul>
<p>30 You choose to document children's development and assessment records regularly -1 (please circle all that apply):</p> <ul style="list-style-type: none"> <li>a. To meet parents' expectations</li> <li>b. To conform with my school principles</li> <li>c. To conform with my own teaching experience</li> <li>d. To improve the teaching quality</li> <li>e. To conform with the criteria of nursery school assessment</li> <li>f. Other _____ Please state why you.</li> </ul>
<p>30 You do NOT document children's development and assessment regularly (please -2 circle all that apply; then please go to question 33):</p> <ul style="list-style-type: none"> <li>a. To meet parents' expectations</li> <li>b. To conform with my school principles</li> <li>c. To conform with my own teaching experience</li> <li>d. To improve the teaching quality</li> <li>e. To improve the working quality of teacher</li> <li>f. To reduce the teacher turn over-rate</li> <li>g. Other _____</li> </ul>

<p>31 How often do you take notes in detail about the children's development and assessment records?</p> <ul style="list-style-type: none"> <li>a. Every day</li> <li>b. Every week</li> <li>c. Every two weeks</li> <li>d. Every month</li> <li>e. Every semester</li> <li>f. Irregular period</li> <li>g. Other _____</li> </ul>
<p>32 When do you usually take notes in detail about the children's development and assessment records?</p> <ul style="list-style-type: none"> <li>a. During whole (small) group time</li> <li>b. During free play in learning center</li> <li>c. During outside play time</li> <li>d. During children's nap time</li> <li>e. After dismissal</li> <li>f. Teacher in-service day</li> <li>g. Other _____</li> </ul>
<p>33 What kind of parental service does your school provide (circle all that applies)?</p> <ul style="list-style-type: none"> <li>a. No parental services in my school</li> <li>b. Parent education plan or curriculum</li> <li>c. Parent letter</li> <li>d. Parents' contact book</li> <li>e. Parent conference or meeting</li> <li>f. Parent observation</li> <li>g. Field trip</li> <li>h. Party</li> <li>i. Parent counseling plan</li> <li>j. Parent volunteer or involvement</li> <li>k. Parent organization</li> <li>l. Other _____</li> </ul>
<p>34 How often does your school operate parental services or parental activities?</p> <ul style="list-style-type: none"> <li>a. No parent activities in my school</li> <li>b. 1 activity per semester</li> <li>c. 2 activities per semester</li> <li>d. 3 activities per semester</li> <li>e. 4 activities per semester</li> <li>f. 5 activities per semester</li> <li>g. 6 activities per semester</li> <li>h. Other _____</li> </ul>

35 Please circle or list the type of parental activities your school provided last year.

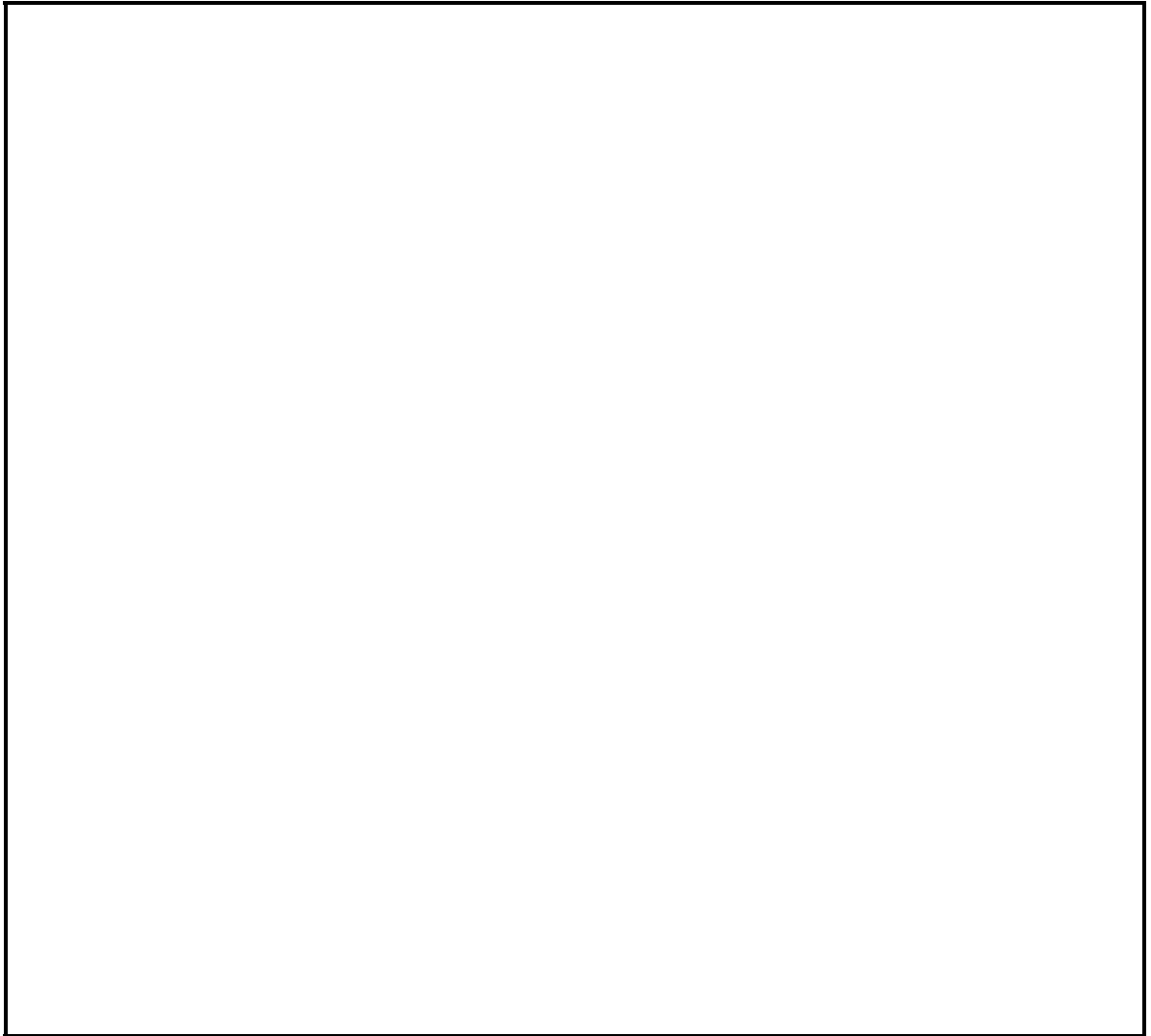
- a. Parent conference
- b. Party
- c. Sport
- d. Children's fair
- e. Field trip
- f. Parent observation or visiting
- g. \_\_\_\_\_
- h. \_\_\_\_\_
- i. \_\_\_\_\_
- j. \_\_\_\_\_
- k. \_\_\_\_\_

36 How do you feel about parental services?

- a. It is necessary
- b. It is not necessary

Your reasons:

Your comments will be appreciated, either here or in a separate envelope.

A large, empty rectangular box with a thin black border, intended for the respondent to provide comments or feedback.

Thank you for your help

*Please return your completed questionnaire in the enclosed envelope to:*

*Wen-ling Chen  
470 Waupelani Dr. #302  
State College, PA 16801*



## **Appendix G**

### **Cover Letter- The Nursery School Assessment Instrument: A survey of nursery school directors and teachers**

Dear directors and teachers:

As a former kindergarten teacher and director with eight years of experience in the field, I understand some of the challenges you face as early childhood professionals. In recent years there has been a lot concern in early childhood education/care about program quality and operations. The Nursery School Assessment instrument influences both issues. This survey has been designed to find out what you think about the use of a nursery school assessment instrument within early childhood education/care and to investigate the relationship between real program operations and the use of the program assessment instrument in nursery schools.

You are one of a small number of people being asked to give their opinions on these matters. Your name was drawn randomly from a list of all nursery school practitioners in Kaohsiung City. In order for the results of the research to truly represent the thinking of people in Kaohsiung City nursery schools, it is important for each questionnaire to be completed and returned in the envelope provided.

This questionnaire includes three parts and 106 questions. The first part– “background questions”–has 10 questions that seek information about you personally and your school. The second part is “opinions on an assessment instrument relating to early childhood education/care content”. In this part, 60 questions were drawn from the criteria in the 2002 Kaohsiung City nursery school early childhood education/care assessment instrument. The third part is “the assessment instrument of early childhood education/care influence individual and nursery school”; answers to the 36 questions will provide valuable information about your experience with the assessment instrument in nursery schools. Please read through the directions in each part before responding the questions.

It may take about 45 minutes to complete the questionnaire. Your answers will only be used in this study. All information from the surveys will be held in strict confidence. Your participation is vital and valued for its contribution to gaining an understanding of practical needs in nursery school assessment. The completed questionnaire will be picked up 7 days after you have received it. If you have any questions or require additional information, please feel free to contact me at home (07) 333-5681 or via e-mail at [wuc110@psu.edu](mailto:wuc110@psu.edu). Thank you very much for your assistance.

Respectfully,

Wen-ling Chen  
Penn State University  
Graduate Student

## **Appendix H**

### **Informed Consent Form for Social Science Research**

The Pennsylvania State University

An Investigation into the Perceptions of Nursery School Directors and Teachers  
Towards Use of An Assessment Instrument in Early Childhood Education/Care  
Evaluations of Nursery School Quality in Taiwan

#### **Description:**

1. The purpose of this research study is to explore how nursery school directors and teachers use an early childhood education/care assessment instrument. Also of interest is to discover and reduce the gap, if any, between ideal regulations and real practices in nursery schools.
2. If you agree to take part in this project, you will be asked to answer 106 questions.
3. There are no risks in participating in this research beyond those experienced in everyday life.
4. You might gain a better understanding of high-quality early childhood programs by participating in this study. You might gain a better understanding of the relationship between assessment instruments and real nursery school operations. You might realize the importance of the nursery school assessment instrument. In addition, this research might provide a better understanding of how assessment instruments affect nursery school operation. This information could help the academic authorities and city government to understand practical needs, and to make nursery school assessment better. This information might assist practitioners in getting used to nursery school assessment.
5. It will take about 45 minutes to complete the questions.
6. All information from the surveys will be held in strict confidence by the researcher. If this research is published, no names of individuals or schools will be revealed in the reports of this study.
7. You can ask questions about the research. The person in charge will answer your questions. Please contact Wen-ling Chen at (814) 278-8867 or wuc110@psu.edu with questions. If you have questions about your rights as a research participant, contact Penn State's Office for Research Protections at (814) 865-1775.

8. There is a small gift for every participant.
9. You will participate in this study voluntarily. You can stop your participation at any time by telling the investigator. There is no obligation to answer any questions.

I have read this consent form and understand the information that has been given to me. I understand that I must be 18 years of age or older to consent to participate in this research study. I agree to participate in this study voluntarily, as an authorized part of the education and research program of the Pennsylvania State University. I understand that I will sign two copies of the consent forms: one is for my own personal copy, and the other is for the research's records.

I hereby agree to participate in this study

\_\_\_\_\_  
Participant Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Investigator Signature

\_\_\_\_\_  
Date

If you have any questions or concern, please contact the following persons:

Investigator

Wen-ling Chen  
470 Waupelani Dr. #302  
State College, PA 16801  
Tel: (814) 278-8867  
E-mail: [wuc110@psu.edu](mailto:wuc110@psu.edu)

Thesis Advisor

Dr. Thomas D. Yawkey  
165 Chambers  
University Park, PA 16802  
Tel: (814) 863-2937  
E-mail: [tdy1@psu.edu](mailto:tdy1@psu.edu)

## Appendix I

### Summary of the Research Questions Related Variables, Scale of Measurement, and Analysis Techniques

Research Question	Variables	Scale of Measurement	Analysis Technique
1. How do the nursery school directors and teachers view academic authorities' design of assessment instruments as tools for developing professional early childhood education/care?	<u>Independent</u> Age Working position Highest education completed Academic area Years of being a teacher Number of children Number of teachers  <u>Dependent</u> Levels of opinion on assessment instrument of professional development	Interval Nominal  Nominal Nominal  Interval  Interval  Interval  Nominal Interval	1. Descriptive statistics was used to calculate the variables for frequency and percent.  2. Paired samples <i>t</i> -test was used to pair interval dependent variables.  3. Expectedly the nominal independent variables will be correlated with the nominal dependent variables by using Chi square.
2. How do the nursery school directors and teachers make decisions about developing self-designed activities and purchasing packaged instructional materials?	<u>Independent</u> Age Working position Highest education completed Academic area Years of being a teacher Number of children	Interval Nominal  Nominal Nominal Interval  Interval	1. Descriptive statistics was used to calculate the variables for frequency and percent.  2. Paired samples <i>t</i> -test was used to pair interval dependent variables.

	<p>Number of teachers</p> <p><u>Dependent</u> Levels of opinion on assessment instrument of professional development</p>	<p>Interval</p> <p>Nominal Interval</p>	<p>3. Expectedly the nominal independent variables were correlated with the nominal dependent variables by using Chi square.</p>
<p>3. What are the views of nursery school directors and teachers about documenting early childhood education/care regularly?</p>	<p><u>Independent</u> Age Working position Highest education completed Academic area Years of being a teacher Number of children Number of teachers</p> <p><u>Dependent</u> Levels of opinion on assessment instrument of professional development</p>	<p>Interval</p> <p>Nominal Nominal</p> <p>Nominal Interval</p> <p>Interval</p> <p>Interval</p> <p>Nominal Interval</p>	<p>1. Descriptive statistics was used to calculate the variables for frequency and percent.</p> <p>2. Paired samples <i>t</i>-test was used to pair interval dependent variables.</p> <p>3. Expectedly the nominal independent variables were correlated with the nominal dependent variables by using Chi square.</p> <p>4. Pearson correlation was used to correlate interval independent variables with the interval dependent variables.</p>
<p>4. What is the feasibility of parent education plans and family services?</p>	<p><u>Independent</u> Age Working position Highest education completed Academic area</p>	<p>Interval</p> <p>Nominal Nominal</p> <p>Nominal</p>	<p>1. Descriptive statistics was used to calculate the variables for frequency and percent.</p>

	Years of being a teacher Number of children Number of teachers  <u>Dependent</u> Levels of opinion on assessment instrument of professional development	Interval Interval Interval  Nominal Interval	2. Paired samples <i>t</i> -test was used to pair interval dependent variables.  3. Expectedly the nominal independent variables were correlated with the nominal dependent variables by using Chi square.  4. Point-biserial correlation was used to correlate interval independent variables with the nominal dependent variables.
5. What are the views of nursery school directors and teachers about not teaching Chinese phonetic signs (Pin-In) activities and writing in nursery schools?	<u>Independent</u> Age Working position Highest education completed Academic area Years of being a teacher Number of children Number of teachers  <u>Dependent</u> Levels of opinion on assessment instrument of professional development	Interval Nominal Nominal  Nominal Interval  Interval  Interval  Nominal Interval	1. Descriptive statistics was used to calculate the variables for frequency and percent.  2. Expectedly the nominal independent variables were correlated with the nominal dependent variables by using Chi square.  3. Point-biserial correlation was used to correlate interval independent variables with the nominal dependent variables.  4. Pearson correlation was used to correlate

			interval independent variables with the interval dependent variables.
6. What are the convergent and divergent views of nursery school directors and teachers regarding the existing governmental assessment instrument of early childhood education/care?	<u>Independent</u> Age Working position Highest education completed Academic area Years of being a teacher Number of children Number of teachers  <u>Dependent</u> Levels of opinion on assessment instrument of professional development	Interval Nominal Nominal  Nominal Interval  Interval Interval  Nominal Interval	1. Descriptive statistics was used to calculate the variables for frequency and percent.  2. Expectedly the nominal independent variables were correlated with the nominal dependent variables using Chi square after recoding the dependent variable into 2 levels (agree or disagree).  3. Point-biserial correlation was used to correlate interval independent variables with the nominal dependent variables.  4. Pearson correlation was used to correlate interval independent variables with the interval dependent variables.
7. To what extent do the practitioners indicate disagreement with the items on the governmental	<u>Independent</u> Age Working position Highest education completed Academic area	Interval Nominal Nominal Nominal	1. Descriptive statistics was used to calculate the variables for frequency and percent.

assessment instrument?	<p>Years of being a teacher</p> <p>Number of children</p> <p>Number of teachers</p> <p><u>Dependent</u></p> <p>Levels of opinion on assessment instrument of professional development</p>	<p>Interval</p> <p>Interval</p> <p>Interval</p> <p>Nominal Interval</p>	<p>2. Expectedly the nominal independent variables were correlated with the nominal dependent variables using Chi square after recoding the dependent variable into 2 levels (agree or disagree).</p> <p>3. Point-biserial correlation was used to correlate interval (or nominal) independent variables with the nominal (or interval) dependent variables.</p> <p>4. Pearson correlation was used to correlate interval independent variables with the interval dependent variables.</p>
------------------------	---	---	--



## Appendix J

### The Comparison of the Present Study and the 2002 Kaohsiung City Nursery School Assessment Report

Assessment Item	Percent in the Present Study		2002 Kaohsiung City Nursery School Assessment Score		
	Agree	Disagree	High	Median	Low
19a. Curriculum is planned flexibly according to individual need	83.3%	16.7%	52.7%	38.7%	8.6%
19b. Curriculum has been discussed among teachers	91.0%	9.0%			
22a. Teachers should learn actively	93.6%	6.4%			
22b. Teachers self-reflect on professional attitudes and growth	94.9%	5.1%	47.3%	43.5%	9.1%
22c. Teachers attend in-service training	92.3%	7.7%			
24a. Use multiple materials that are appropriate for children's development	97.4%	2.6%	29.0%*	28.4%*	22.6%*
24b. Use self-designed activities that are appropriate for children's development	64.1%	35.9%			
24c. Teachers cannot adopt activities from purchased, packaged instructional materials	33.3%	66.7%			
32a. Literacy environment is set up within a whole language approach	83.3%	16.7%	32.8%	27.4%	39.9%
32b. Not teaching of writing in nursery schools	17.9%	82.1%			
32c. Not teaching of Chinese phonetic signs in nursery schools	7.7%	92.3%			
33a. Talent classes are prohibited	14.1%	85.9%	14.5%	58.1%	27.4%
33b. The talent classes are no extra charge to parents	59.0%	41.0%			
36 Regular descriptions of special children's cases	76.9%	23.1%	33.3%	43.5%	23.1%
37a. Regularly writing in the parents' contact books	100%	0%	74.7%	21.0%	4.3%
37b. Parents response in parents' contact books	100%	0%			

38. Documenting the descriptions of children's development and learning that include cognitive, social, emotional, and physical data	83.3%	16.7%	30.6%	40.3%	29%
39a. Informing the counseling organization when the school has children with special needs	92.3%	7.7%			
39b. Providing counseling information to parents who have children with special needs	98.7%	1.3%	33.3%	43.5%	23.1%
39c. For the children with special needs, teachers follow through with activities recommended by professionals	84.6%	15.4%			
40. Regular and continuous descriptions are written assessing children's development	93.6%	6.4%	41.9%	32.3%	25.8%
48a. Teachers visit families regularly at home	44.9%	55.1%			
48b. Teachers phone families regularly	94.9%	5.1%	43.0%	33.9%	23.1%
48c. Teachers record dates and details about the home visits or phone calls	92.3%	7.7%			
55. The school actively encourages and establishes a parent organization	39.7%	60.3%	9.1%	18.3%	72.6%
57a. Consulting service is provided to parents	94.9%	5.1%	44.6%	39.8%	15.6%
57b. A schedule or telephone line exists for parents' consultation	73.1%	26.9%			

*Note.* The 2002 Kaohsiung City Nursery School Assessment scores nursery schools into high score, median score, and low score depending on quality. The report showed the percent of schools at each score level.

\*The total percentage of item 24 was 80% in the 2002 Kaohsiung City Nursery School Assessment Report.

The present study shows the percentage of respondents' agreement.

## Appendix K

### Letter of Permission from the Social Affairs Bureau of Kaohsiung City Government

#### 高雄市政府社會局 函

機關地址：高雄市四維三路二號二樓  
聯絡電話：073373378  
機關傳真：331-5847

受文者：陳文齡小姐

速別：普通件

密等及解密條件：普通

發文日期：中華民國九十三年四月二十六日

發文字號：高市社局五字第〇九三〇〇一二三三八號

附件：如主旨

主旨：有關台端欲採用本局九十一年度托兒所評鑑工具作為博士論文之研究工具乙案，本局同意所

請，並請台端完成論文著作後，提供乙冊供本局推展托育業務參考。敬請 查照。

說明：復台端九十三年四月十七日電子郵件。

正本：陳文齡小姐

副本：本局第五科

局長洪富峰

## VITA

### Wen-ling Chen

#### EDUCATION

Ph.D. Curriculum and Instruction	
The Pennsylvania State University, University Park, PA	2006
M.Ed. Early Childhood Education	
Boston University, Boston, MA	1993
B.A. General Studies in Education	
Oklahoma City University, Oklahoma City, OK	1992

#### PROFESSIONAL EXPERIENCE

Lecturer, Department of Early Childhood Education/Care	
Director, Nursery School Laboratory	
Cheng Shiu University, Kaohsiung City, Taiwan	2000-2002
Kaohsiung City Nursery School Assessment Committee Member	
The Social Affairs Bureau of Kaohsiung City Government, Taiwan	2001-2002
Lecturer, Department of Early Childhood Education/Care	
Director, Nursery School Laboratory	
Chia Nan University of Pharmacy and Science, Tainan, Taiwan	1996-2000
Tainan City Nursery School Assessment Committee Member	
The Social Affairs Bureau of Tainan City Government, Taiwan	1997-2000
Preprimary Credential, American Montessori Society	1992
Infant & Toddler Credential, American Montessori Society	1995

#### PUBLICATIONS

1. Chen, Wen-ling (2001). 學校如家一般的溫暖. [The school is as warm as the family]. *Journal of Preschool Education Monthly*, 24, 76.
2. Chen, Wen-ling (Writer/Director). (1996). *Montessori teaching: Sensory motor education* (4 volumes) [Motion picture]. Taipei, Taiwan: Montessori Culture Co.
3. Chen, Wen-ling (Writer/Director). (1996). *Montessori teaching: Language arts education* (4 volumes) [Motion picture]. Taipei, Taiwan: Montessori Culture Co.

#### PRESENTATIONS

1. *An Investigation of Perceived Needs of ESL and Non-ESL Inservice Teachers Toward Assessment and Instruction of English Language Learners in English as Second Language Classrooms*. Paper presented at the meeting of the 23rd International Conference on English Teaching and Learning, Kaohsiung, R.O.C. (2006, May).
2. *Assessment in ESL Classrooms: From Teachers' Perspectives*. Poster session presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (2006, April).