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**LA THÈSE A ÉTÉ  
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A COMPARISON OF PRE-SCHOOL LEARNING STRUCTURES  
RELATED TO COOPERATION AND CREATIVITY IN CHINA AND CANADA

by

Qi-Ying Zhou

Thesis submitted to the School of Graduate Studies  
and Research in partial fulfillment of the require-  
ments for the degree of Master of Science in  
Kinanthropology in the School of Human Kinetics and  
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UNIVERSITÉ D'OTTAWA  
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Dedicated to  
the children of the world  
and my son Deng

## ABSTRACT

The major purpose of this study was to document the activities to which five-year-old children are exposed in Canadian and Chinese kindergartens and to assess whether there were differences in their structural make-up. Systematic observations were conducted for three "school days" in eight kindergarten classes for five-year-olds in Beijing, China and eight kindergarten classes for five-year-olds in Ottawa, Canada. Two separate categorization systems were developed along two dimensions: 1. type of interaction among children, 2. extent of self-direction allowed within the activity. Average relative time for activities falling within each of these categories for each school was calculated. A non-parametric statistical test was conducted based on the ranks of the relative time.

One of the major findings of this study was that there was more relative time scheduled for individual activity in the Chinese sample and more relative time scheduled for class activity in the Canadian sample  $p = .10$ . A higher percentage of time was allotted to free play, physical exercises and games in the Chinese kindergartens. The content of children's literature, songs and rhymes in China also appeared to be more cooperative in nature. More studies of this type are needed to better understand children from a cross-cultural perspective.

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## CHAPTER I

### INTRODUCTION

#### 1. RATIONALE FOR THE STUDY

Every society is said to love and treasure its children - reminders of its past and the key to its future. In China, too, the "flowers of the motherland" are raised, protected, and educated with great care. The Chinese state assumes the responsibility for promoting "the all-round moral, intellectual and physical development of children and young people" (China Pictorial, 1983:1). In 1982, 11,130,000 Chinese children were enrolled in over 122,107 kindergartens (China Facts and Figures, 1984).

A member of a group of American child psychologists who visited China in 1975 reported: "We were all moved - some of us shaken - by the differences between Chinese and American societies, differences shown in ideology, in art, in educational practice, and, most vividly for all of us, in the lives of the children" (Kessen, 1975: xii).

After having been to China in 1972 and again in 1982 Orlick stated: "The Chinese children demonstrated a concern for one another which is rare in other cultures. They are taught to love and care for each other, and to be responsible human beings" (Orlick, 1978b: 57). In 1985 Orlick and Zhou conducted the first systematic study assessing the

extent of cooperative behavior among Chinese pre-school children. They found that 5-year-old Chinese children engage in significantly more cooperative behavior than their counterparts in Canadian kindergartens (Orlick and Zhou, 1985).

After doing informal observations in China, Caldwell wrote: "During our three weeks in China we saw thousands of young children, in schools, in their neighborhoods, in parks, and on city streets. Almost never did we see any antisocial behavior" (Caldwell, 1975: 108). Similarly Sidel (1972) reported that "Chinese children never push one another, never grab a toy from another child, do not have any hostile interaction among themselves or with adults" (Sidel, 1972).

The systematic observations conducted by Orlick and Zhou (1985) do not entirely support this finding. When Chinese children are observed for entire days in natural free play settings it is clear that they do in fact push, shove, hit and grab toys. However, they are much more cooperative and less aggressive than Canadian children in their overall interaction with each other.

In addition to praising the prosocial behavior in Chinese children, Caldwell (1975) pointed out "the virtual absence of problem-solving tasks as standard classroom activities" as compared to preschool practice in the United States and other Western countries. "At least in the pre-school years, we seldom saw the child presented with any activities that required him to figure out what to do or to consider alterna-

tive solutions. Uniformly, children were being taught skills for performing preset tasks rather than strategies for approaching new problems" (Caldwell, 1975: 100). The validity of Caldwell's impressions will be assessed by the present study

Kessen (1975) stated:

The orderliness of Chinese classrooms forces American students of children to ask how such order is established and maintained, and at what cost to individual variety and creativity. We cannot hazard a guess, but we left China convinced that we had seen radically different ways of thinking about and meeting children's needs from the ways we knew as Americans. It will take many more years and more concentrated observations of children as they grow up in the two societies before we can move from speculation and hypothesis to principles defining the interplay of culture and the development of young children (Kessen, 1975: 221).

Program Influences - Research on variables which are felt to influence children's behavior in kindergarten settings has been conducted by many researchers. Quilitch and Risley (1973), Connolly and Smith (1978), Stoneman, Cantrell and Hoover-Dempsey (1983), and Bower, Ilgazcarden and Noori (1982) investigated the influence of physical resources. Connolly and Smith (1978), Murphy, Hutchison and Bailey

(1983), Deutsch (1949), Stendler, Damrin and Haines (1951), and Orlick (1976) studied the effects of kindergarten learning structures and class organization.

Quilitch and Risley (1973) undertook a study which investigated the role of different kinds of toys in affecting social behavior. This experiment established that "the type of toys given to children within a free-play setting had a pronounced and dramatic effect on their social play and the amount of time spent playing cooperatively with each other" (Quilitch and Risley, 1973: 577). Quilitch and Risley concluded: "School and childcare centers can now take charge to maximize children's opportunity to practice social and cooperative play behaviors. This social training, traditionally left to chance, could be planned so that all children have the maximum possible opportunity to develop their social skills" (Quilitch and Risley, 1973: 577).

Deutsch (1949) demonstrated experimentally that cooperative learning structures resulted in more harmony among people than did competitive learning structures. Stendler, Darmin and Haines (1951) conducted a study with 7-year-old children which supported their finding. Children's cooperative or competitive responses were primarily a function of the social situation to which they were exposed.

Sherif's (1956) Robber's Cave Experiment showed that when 12-year-old boys were placed in situations in which one group could achieve its aims only at the expense of another group, group members

became hostile toward members of the opposing group, even though the groups were composed of "normal", well-adjusted individuals. Sherif concluded, that the probability of achieving harmony is greatly enhanced when individuals or groups are brought together to work toward common ends.

Orlick (1976, 1978a, 1978b, 1979, 1981) experimented with the physical medium of play and games, as a means of influencing positive cooperative socialization among children. A series of games was designed so that it was necessary for children to interact in a cooperative way to meet a challenge or to achieve the goal of the game. He demonstrated that through a well-designed cooperative games program, it was possible to increase spontaneous cooperative behavior among kindergarten children during unstructured free time.

With respect to overall program effects, Miller and Dyer (1975) found that the 4-year-old kindergarten programs they studied did have definite effects on children, both in terms of immediate impact and over a 4-year period, regardless of what programs they were exposed to at a later age.

Chinese Program Effects. A systematic study comparing the structural components of kindergarten activities in China and Canada appeared to be a logical step in furthering the understanding of children's behavior especially in a cross-cultural context. At this point in time, no systematic study has yet been done documenting the types of

activities to which Chinese children are exposed. All that exists in the literature are the impressions of a few foreign scholars who visited Chinese schools for very brief periods of time. Those conditions were not likely representative of what children are exposed to in a normal school day. An in-depth systematic study under natural conditions is needed to shed more light on this problem.

## 2. PURPOSE OF THIS STUDY

The purpose of this study was to record all kindergarten activities to which 5-year-old children were exposed in Chinese and Canadian kindergarten programs and to compare their structural makeup. The focus of the study was on recording activities and then classifying them based upon their structural components. More specifically an attempt was made to assess the extent to which activities were structured to elicit individual, class, cooperative, semi-cooperative or competitive responses; and the extent to which activities were self-directed, partially self-directed or teacher-directed.

It was felt that by first, documenting, and then classifying the structural components of the kindergarten activities in each country, existing differences could be clearly identified. It was hoped that this in turn might lead to a better understanding of predominant behaviors in each culture and a sharing of each other's strengths and cultural heritage.

## CHAPTER II

### REVIEW OF THE LITERATURE

The review of the literature deals with three main areas: 1) Observations and comments on Chinese children and culture with emphasis on the dimension of prosocial vs. anti-social behavior, 2) Observations and comments on North American children and culture with emphasis on the dimension of prosocial vs. anti-social behavior, 3) Observations and comments on North American and Chinese children with respect to the dimension of self-directed vs. teacher-directed activity.

#### 1. OBSERVATIONS AND COMMENTS ON CHINESE CHILDREN AND THE CHINESE CULTURE WITH EMPHASIS ON THE DIMENSION OF PROSOCIAL VS. ANTI-SOCIAL BEHAVIOR.

Having been to China twice, Orlick (1978) reported:

I could not help feeling the warmth of the people. I could not avoid being impressed by the value structures of honesty, self sufficiency, cooperation, and concern for others. Young children are taught to take care of each other and older children not only take care of each other but are also taught that they should "take more care of younger children." Chinese nursery

school children learn to button their own clothing but also other children's clothing. Teachers encourage young children to help a classmate who has fallen down. If an individual is not doing well, the Chinese feel that it is up to everyone to help that person. It is a collective responsibility to help another deal with obstacles (Orlick, 1978b: 60).

In Women and Child Care in China, Sidel (1972) reported:

What is so amazing, of course, in walking the streets of Peking or Shanghai, or visiting a commune or urban neighborhood, is that we never saw aggression among the children. At one park in Hangchow, one of us handed a piece of candy to a boy of about ten, he immediately passed it on to his baby sister. He was then handed a second piece, which he passed to his mother. He kept the third piece, he had no one else to give it to (Sidel, 1972: 114).

In 1975, thirteen American scholars in child development visited China. They observed and talked with children, teachers, educational administrators and parents in 28 schools throughout China. In the book Childhood in China, Stone and Kagan (1975) reported:

Four of us spent part of a morning observing there (Remin Nursery) and two of us a whole day. A small number of non-Chinese children, whose parents were members of the diplomatic

corps in Peking, attended this nursery. During a twenty-minute observation we saw only one act of direct aggression and two acts of gentle pushing displayed by 27 Chinese children, in contrast with five acts of aggression or pushing for the three non-Chinese children in this play area. It was revealing to us that, at lunchtime, the only children who needed help with the food or special encouragement to eat were the few non-Chinese children (Stone and Kagan, 1975: 59).

Being asked about hyperactive children, the Chinese teachers in the nursery said:

Some children are naughty. Usually the naughty children are the most active children, those who like to work and like to learn to do physical labor, those who like to ask questions and are more clever than others. Therefore, we should display the naughty children's good characteristics. If they like to move a lot, we ask them to help the teacher. And since we have some children who are slow in understanding the lessons that the teacher is teaching, we ask the active ones, the naughty ones, to help the slower children (Sidel, 1972: 122).

An eye witness account by an American woman visiting a nursery school in China reported:

Outside, one section of the school was in recess, and almost a hundred children were engaged in a game of tug-of-war. Some of our American women started choosing sides and shouting encouragement. As if to answer us, the children stopped in the middle of the pulling and chanted to each other, "Friendship first, competition second. We learn from each other." Suddenly an American leaped into the fray, she chose a side, picked up the end of the rope, and pulled with all her might until all the children fell down. The other American women laughed and applauded, but I noticed that the children were very confused and the teacher looked mystified. The children got up, and the teacher started shifting the players, so that some of the stronger children would balance out the sides. She blew a whistle and they started again. This time, another American jumped in. She added her strength to one end of the rope, and managed to topple as many children as another American had. The children were looking at us as if we were violent and aggressive strangers who had come to play games to which we did not know the rules. We had disturbed their games, and we had even applauded the disturbance. If the lesson of the game really was to make competition secondary to friendship, we had made a mess of the lesson (MacLaine, 1975: 180).

While watching a relay race in a Chinese kindergarten, several American psychologists reported:

The cheer is directed toward all the racers; we did not see rooting for one team versus another, though we surely saw smiles of pleasure in victory. These races brought children and teachers alike to a high pitch of enthusiasm, which did not in our experience deteriorate into partisan wrangling or surging forward to have a turn (Caldwell, 1975: 80).

While visiting a primary school, Maccoby (1975) reported:

When we observed extracurricular activities, children challenged us to games of ping-pong, and enjoyed winning, but were careful to moderate their spectacular games so as not to make us look as incompetent as we were - "Friendship first, competition second" (Maccoby, 1975: 141).

Maccoby (1975) went on to say:

Some interesting sidelights on problem-solving and cooperative behavior among second-graders and teachers' perceptions of that behavior were obtained in a brief demonstration with a Western apparatus. One of us brought to China a Mintz Jar - a clear plastic jar with a hose for admitting water into the lower portion of the jar, and a single "escape hatch" at the top through which wooden "men", attached to strings, can be withdrawn one at a time.

In the elementary school in Peking where this apparatus was used, the "game" was first demonstrated to a group of teachers and the principal. One teacher suggested that when the apparatus was brought into the classroom, the wooden men should already be inside - if the students saw the men being put in, it would be too obvious to them that they could only pass through the opening one at a time. Another teacher suggested that the jar should be partly filled with water before the "go" signal, to reduce the decision time and make the problem more difficult. The game was introduced to a class of 8-year-old children in the following way.

These men (pointing to the wooden pieces on strings) are building a tunnel; a leak has started and the water is rising; the men must get out of the tunnel before the water reaches them. Each of you (three children) will hold a string, and must try to pull your man out quickly as soon as I say "go".

The experimenter asked for three girls; the teacher selected three girls, who came to the front of the room and each took the end of a string. The girls then began to whisper among themselves who was to go first, who second, who third. At the go signal they followed their plan neatly and got all three men out in minimal time.

The experimenter then suggested repeating the procedure with three boys. So the teacher called on three boys. They accepted the strings without consultation with each other. At the "go" signal, one reacted very quickly and got his man out. The other two jammed at the exit. Then one boy (who was wearing a red scarf) said softly to the other, "This is dangerous, you go first and I'll go after you." He then released his string and allowed the other boy's wooden man to exit, then pulled his out.

The teacher then put her arm around the boy's shoulder, and turned him to face the class, saying, "It was good of you to let the other one go first" (Maccoby, 1975: 146-147).

There was one attitudinal study done by a Canadian child psychologist in 1961 to assess some of the attitudes of young Chinese people, ages 10-16. He wanted to assess the character traits "which the Chinese leaders had been trying to form in these youth over the last 12 years..." The most frequent answers to the question "What is the most favorable thing that someone could say about you?" were: "She does her best for the mother country." "He is a good student and a good worker." "He is selflessly devoted to the cause." The most common answer to the question "What is the best act you could perform?" were: "Help an old person carry his packages." "Help reconcile children who are fighting" (Sidel, 1972: 77):

After a visit to China in 1972 Orlick commented, "The rewards of the Chinese society come from serving others. You can feel good about yourself, you can feel good about contributing to others, and you can gain recognition from your helpful acts" (Orlick, 1978b: 68).

At the 5th World Sport Psychology Conference held in Ottawa in 1981, one of the invited speakers from China stated:

Cooperative education is better undergone in the process of activities in sports and physical training. The students must inevitably show different behavior in the collective. The instructors should be good at observing students' behavior in activities from their language and actions, in which their attitudes are exposed. The instructors should take full advantage of the educational opportunity and give students timely feedback (Wang, 1982: 180).

The experienced instructors may arrange some special or unusual conditions for the members of the group. For example: Offer better and worse, new and used equipment at the same time to the students to see if they take the better or new ones for themselves and let their playmates have worse and used ones, or just the contrary. Assign a skilled and unskilled student to practice together to see if the skilled ~~will~~ help the unskilled warmly or show impatience. Ask a successful student to introduce and demonstrate his experience and technique to the group to

see if he is willing or does so with reserve. Offer a less sufficient amount of equipment or apparatus to the group to see if everyone will "grab" the opportunity for practice himself or let playmates have the practice opportunity first (Wang, 1982).

Talking about his own experience, this speaker said:

At school I frequently took part in games and competition; I was never told or made to feel: "You must win." "If you win, you will be rewarded." When the contest came, the coach told us simply: "Try your best." That is all. On my teams, no one was reproached when losing, but instead was encouraged. One was supposed to be blamed only if he displayed poor sportsmanship. The coach did his best not only in teaching us skills, but more important, in establishing a cooperative relationship within the team and with others. He made us recognize and do our share for others' needs and our concepts of discipline and cooperation were rooted in our mind at that time (Wang, 1982: 181).

In his book, Winning Through Cooperation, Orlick stated that we (in North America) tended to use sports as a training ground for competitive and aggressive behavior. But through a different kind of emphasis, China used sports as a training ground for cooperative and collective behavior (Orlick, 1978b).

Chinese athletes were very noble and honest in their approach to the game as we saw in a provincial volleyball game. Towards the end of a very closely contested game, a six-foot, nine-inch Chinese player leaped into the air and spiked the ball with great accuracy to tie the game at 14-14. After being awarded the point, on his own accord he raised his hand to indicate to the official that he had touched the net. The point was withdrawn and the crowd cheered this athlete for his honesty. Purposeful cheating or foul play was not acceptable behavior. The emphasis was placed on honesty, cooperation and mutual help. The game never became more important than the people (Orlick, 1978b).

The University of British Columbia hockey team travelled to China in 1973 to play some Chinese teams. On one occasion, as reported by the Toronto Globe and Mail, early in the first period the spectators moved to the edge of their seats as a Canadian, tussling with a Chinese in a corner of the ice, raised his fist in a fit of momentary anger. The moment passed quickly, and as the two players skated back into the play, the Chinese patted the Canadian on the arm in a gesture of conciliation. The Canadian, apparently unfamiliar with such mannerisms on the ice, hesitated for a moment, before reciprocating with a pat on the behind. The crowd roared with approval (Orlick, 1978b).

When the Chinese gymnasts competed in the United States in the early 1970's, one of the U.S. gymnasts had problems with her floor exercise music. The Chinese pianist accompanying the Chinese team willingly played for her, even though this was likely to increase their "opponent's" score (Orlick, 1978b).

Reflecting on how Chinese people come to be as they are and how the very young Chinese child is brought to cooperation, competence, social grace and restraint, Kessen (1975) stated:

The adult knows what a child should be like; they behave as though it were certain the child would behave in the expected way, and on his side the child joins a social structure where the definition of his place and the definition of his proper behavior are, by and large, without ambiguity and without conflict. Apparently, under these circumstances, the ideology of expectations often becomes the fact of the child behavior (Kessen, 1975: 220).

## 2. OBSERVATIONS AND COMMENTS ON NORTH AMERICAN CHILDREN AND THE NORTH AMERICAN CULTURE ON THE DIMENSION OF PROSOCIAL VS. ANTI-SOCIAL BEHAVIOR.

Rittenberg (1982), an American living in China for more than 30 years, reported his experiences and impressions during a return visit to relatives in the United States:

We visited a terrific museum - the NASN Museum. A four year old boy was walking in front of us; he was very likeable, walking beside his mother. Out of habit I gently petted him on his head. He turned his head and

stared at me, fear written all over his face. He said to his mother, "Mom, that man touched my head." I told a reporter about this and said, in China, wherever you go, the children, no matter how big or small they are, call everyone uncle or aunt. The children always feel that if they should run into any difficulty, the uncles and aunts are bound to be willing to help them out. Even I, a foreign uncle, have often come across such things (Rittenberg, 1982: 46).

A reporter for the Washington Star said to Rittenberg:

You must understand, if you were in the United States, you, too, would teach your children not to speak with a stranger and not allow themselves to be touched by a stranger. That is for their own protection. It is a fundamental problem, not simply a matter of social habit; as our children grow up, we are constantly wary (Rittenberg, 1982: 46).

Another point was made by Yang (1982), who was born and grew up in China with American parents. After going to the United States he commented:

Because of the pervasive significance of the system of private property, much tension exists between people.

In the United States, it is "every man for himself". If you do not look out for yourself, nobody is going to help you, and you cannot live. You must first look after yourself before you look after others, otherwise, you're in trouble (Yang, 1982: 86).

He went on to say that in China, it was the other way around; we looked after other people before we looked after ourselves, and we looked after the public good before we took care of our own; we tried to be public spirited and impartial. In the United States, what was your own came first. When kids went to school, especially when it came to exams in college, there was very intense competition, so that they could become lawyers and doctors. The students went to the library to borrow books, and they fought to get the most crucial references. Sometimes they tore out the critical pages or chapters before they return the books, so that the other students could not read them. In this way, they hoped to get better grades than the other students and thus graduated, perhaps, with a better diploma. The idea of every man for himself, inevitably made everyone else an enemy, whether consciously or subconsciously (Yang, 1982).

Orlick reported an interesting incident that occurred with respect to "the rights of others" when the first group of mainland Chinese students came to Ottawa to study English at Carleton University.

They (the Chinese students) were living in a dormitory and they told me they were having some trouble adjusting to the custom of playing loud music into the late hours of the night. It was difficult for them to imagine how a few individuals could play their radios and stereos so loudly when others were trying to sleep. They were too polite to say anything and wrote this off as a strange Western custom. Something else which amazed them was the North American game of tackle football. They could not quite see the point of putting on "armor" and smashing into one another (Orlick, 1978b: 68).

On the same topic, Brofenbrenner (1979) also stated:

In the United States, it is now possible for a person eighteen years of age, female as well as male, to graduate from high school, college, or university without ever having comforted or assisted another human being who really needed help. The psychological consequences of such a deprivation of human experience are as yet unknown. But the possible social implications are obvious, for sooner or later, and usually sooner, all of us suffer illness, loneliness, and the need for help, comfort, or companionship. No society can sustain itself unless its members have learned the sensitivities, motivations, and skills involved in assisting and caring for other human beings (Brofenbrenner, 1979: 53).

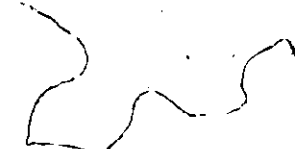
In his book, Of Children, Lefrancois stated:

Research on pro and anti-social behavior in the United States was clearly stimulated by a rash of newspaper reports in the early 1960s describing various brutal murders, rapes and other violent crimes where bystanders observed but carefully and deliberately did not intervene.

One such report describes the murder of a young woman, later reported in the New York Times. Thirty-eight different individuals watched this murder that took a full-half-hour to complete. Yet not a single one offered assistance or even phoned the police. Subsequent investigations of "altruism" reveal that a shocking majority of people are unwilling to become involved even when clearly capable of coming to the rescue of people in serious trouble, particularly when they are only one of a number of others who could also come to the rescue (Lefrancois, 1980: 382).

In an article entitled "Who Says Somebody's Gotta Lose?" Sapon-Shevin (1980) reported:

I walk into a classroom of third graders doing independent seat work, and I see that they have built them-



selves barricades of books so that their fellow will not be able to see their papers. They curve their arms over the tops of their papers so that their neighbor's eyes will not see the answer. I wonder, where did they learn to do this?

I introduce a non-competitive bingo game to a group of kindergarteners. A second grader, older, wiser, wanders over to observe. At the end of the game he observes ten winners, all learning, all happy - and he looks at me with disbelief and says, "Hey, this is no fair. This is an 'everybody wins game'; somebody's gotta lose" (Sapon-Shevin, 1980: 1).

In The Second Cooperative Sports and Games Book, Orlick (1982)

contended:

When you place children in competitive king of the mountain structures and you make them feel as if their personal acceptability or self-worth is dependent on being on top, you create problems. These problems surface in the form of high levels of distress, dropping out, destructive aggression, and depression. If the outcome is made to seem important enough, people will deceive, cheat, hurt, and even kill to get to the top. And the rules they learn as children will affect them

all their lives. By accepting the competitive goal as all-important, people not only become more willing to destroy others but may also destroy themselves and their families in the climbing process (Orlick, 1982: 5).

Orlick (1982) spoke of a cooperative games workshop he conducted for a group of teachers at a large city high school on a Saturday.

We were all outside playing together joyfully with parachutes billowing and beach balls flying. In the midst of our carefree play, a group of 7-year-olds trotted onto the field dressed in a full armor for a football war. They paused momentarily, glancing over, with a wishful look in their wide-open eyes. The bellowing holler of the coach across the field silenced any thoughts of playfulness; they were there to do battle. There was something ironic about the whole situation, especially when the command, 'Hit, Hit,' penetrated through the laughter of our adjoining play space (Orlick, 1982: 7).

Orlick (1982) stated, by promoting physical aggression or requiring it in the rules of a game, you teach children that it is perfectly acceptable to hit, push, shove and otherwise mistreat other human beings. There is not a single shred of evidence to support the position that aggressive tendencies are reduced "harmlessly" by engaging in physical aggression against others (Orlick, 1982).

In Winning Through Cooperation, Orlick (1978b) stated:

In our own culture we are besieged with competition. We reward winners and reject losers. Our educational system is based upon competition. We do not teach our children to love learning; we teach them to strive for high grades. We do not teach children to love sports, we teach them to win games. Many people seem to feel that in order to teach children to live and prosper in society they must be prepared to be competitive and to take advantage of others before they are taken advantage of. American children have become so conditioned to competition that they compete even when the situation requires cooperation. Ten-year-old children in Los Angeles participated in a series of experiments and repeatedly failed to get rewards for which they were striving because they were competing in games which required cooperation. In one experiment, both Mexican and American children were given a series of cards which allowed each child to choose the outcome for both himself and his peer. The American children often made self sacrifices solely in order to reduce the rewards of their peers. In another experiment with younger children, a toy was given to one child and another child was allowed to decide whether the first child should keep it. The researcher concluded, Anglo American chil-

dren are not only irrationally competitive, they are almost sadistically rivalrous. Given a choice, Anglo American children took toys away from their peer in seventy-eight per cent of the trials even when they could not keep the toys for themselves. Observing the success of their action, some of the children gloated, "Ha, Ha, now you won't get a toy" (Orlick, 1978b: 23, 35).

According to White (1975) this is not surprising at all because being able to express hostility to peers and adults and compete for equipment and attention are criteria for a "socially competent" child in North America.

Gallo and McClintock (1965) reviewed many U.S. studies employing the Prisoner's Dilemma game. Their review made it clear that the typical U.S. player of this game tends to compete. This held true for players of diverse personality profiles and of both sexes. This "complete" response was found over a wide variety of experimental manipulations, for example, even with an experimenter's confederate making a high proportion of cooperation responses. The researchers found that one way to enhance cooperative playing was to have one player (a confederate of the experimenter) cooperate consistently and "shame" the real player into doing the same. Nevertheless, the prevalent tendency among U.S. players of Prisoner's Dilemma was to attempt to win as much as possible by taking advantage of the other player (Segall, 1979).

Segall went on to say:

In an atmosphere like that of a business school, competitiveness may be so highly valued that competitive behavior will emerge especially when a player is interacting with a person whose approval he or she seeks and respects. A good businessman may actually enhance the bond that exists between himself and a good friend by taking advantage of him! (Segall, 1979: 144).

In "Competition: A Cultural Imperative?" Elleson (1983) stated:

In this country (U.S.) the school, workplace, social gathering, athletic field and even the laboratory are characterized by a competitive atmosphere. Competition has been viewed as a normal part of the developmental process. Freud said that all children engaged in rivalry for parental love, for possessions and for space. The American way of life presupposes climbing the ladder to success, often, unfortunately, by pulling or pushing others down and trampling on the bodies or psyches of those one wishes to surpass (Elleson, 1983: 197).

After returning from her trip to China, Sidel (1972) reflected in the following way:

Finally, we might reevaluate our attitudes about child rearing. Our understanding of the psychology of children has become highly sophisticated in the past thirty years and, due to the mass media, relevant concepts have been widely disseminated to the general public. Concepts such as ambivalence, sibling rivalry, Oedipal feelings, and the normalcy of aggression are commonplace, even if not referred to in technical terms. Freudian thinking has been popularized on television, day and night. Now we expect love-hate relationships, we expect Johnny to have mixed feelings about his baby brother, we expect him to want to do away with his father, even if just in fantasy, and we expect anger and aggression. And, as any newspaper or news program tells us, we get it. Perhaps we have come full circle. Perhaps now that we expect certain personality developments, our expectation creates their expression. Perhaps it is our anticipation of sibling rivalry which exacerbates its manifestation. The Chinese in the handling of their children seem to expect good behavior, cooperation and obedience and, in general, get it. Although they clearly recognize that there is a non-cooperative, hostile, aggressive side to man, they do not emphasize it. They emphasize the cooperative, not the competitive; the love, not the hate (Sidel, 1972: 188).

Comments made by Leontiev, a Russian psychologist supports Sidel's statement.

It seems to me that American researchers are constantly seeking to explain how the child comes to be what he is; we are striving to discover not how the child comes to be what he is, but how he can become what he not yet is (Bronfenbrenner, 1979: 40).

### 3. OBSERVATION AND COMPARISON OF NORTH AMERICAN AND CHINESE CHILDREN ON THE DIMENSION OF SELF-DIRECTED VS. TEACHER-DIRECTED ACTIVITY.

Foster (1971) stated that "training in 'how to think' will assume far more importance than the body of knowledge to be learned. In other words, the process of learning will take preference over the end product" (Foster, 1971: 44).

Jones (1972) agreed that "subjects are human creations and the children are not in school merely to learn of other people's creative work, but to produce their own" (Jones, 1972: 28). Jones (1972) also pointed out that "it has been agreed by researchers and teachers that children learn best what comes to them pleasantly and as a personal discovery" (Jones, 1972: 28).

It appears that self-directed activity on the part of children is valued in North America. McAllister (1980) stated: "After decades of dialogue, parents and educators do seem to agree on one thing: that the cultivation of creativity is an essential element of a child's education because it prepares him for a more fulfilling life both inside and outside the classroom" (McAllister, 1980: 104).

In an article entitled, "Techniques of Creative Teaching", Hallman (1967) contended that creative teaching provided for self-initiated learning on the part of pupils. It stimulated pupils to associate, imagine, and make wild guesses. It encouraged students to shift their positions of observation, to vary their approaches to problems, to look for new meanings in familiar materials, and to employ old meanings in new contexts. Creative teaching provided opportunities for students to manipulate materials, ideas, concepts, tools, and structures (Hallman, 1967: 327).

A vivid example of involving children with self-directed and partially self-directed activity is presented by a movie entitled, "The Serious Business of Play". Preschool children are encouraged to explore the world by themselves, to create their own poems, to write diaries, to use self-made puppets to perform their own stories, to use paperboard to build houses, to use dough and water color to make a three-dimensional map. The commentary says: "When I hear, I forget; when I see, I remember; when I do, I understand."

Creative dance is another medium which allows for children's self-directed and partially self-directed activity. For example, while listening to music, children can be asked to express what they are feeling by drawing or dancing. The teacher can ask children to imagine dancing with a balloon using all the gentle movements, or to imitate a big animal with powerful movements.

As Jones (1972) pointed out:

Creative dance can be defined as the spontaneous reenactment of emotion in movement, in which children explore the limitations and potential of their own bodies and minds. Feeling and thought are expressed through movement, which for very young children is more expressive than speech. Through movement and dance, many children are enabled to explore areas of experience which may not yet be accessible to them through words

(Jones, 1972: 57).

The following poem and song also reflect the concern for self-directed and partially self-directed activity on the part of children in education in North America.

## Tell Me, Teacher

Teacher, teacher, tell me true,  
 Tell me what I ought to do.  
 Teacher, teacher, where's my book?  
 Tell me where I ought to look.  
 Tell me what to feel and how to think,  
 When to eat and what to drink.  
 Tell me what is good and what is bad,  
 When I'm happy and when I'm sad.  
 Tell me, tell me, what to do,  
 Tell me, tell me, what is true.  
 Make me learn and make me know,  
 Watch me closely when I come and go.  
 For I am small and I am weak,  
 Without your permission I cannot speak.  
 I cannot learn except by your decree,  
 Please, I beg you, give knowledge to me.  
 I am stupid and you are bright,  
 I am wrong and you are right.  
 I am bad and you are good,  
 I must do what you say I should.  
 Oh teacher, teacher, look what you've done,  
 I don't believe I'm anyone.  
 Oh teacher, teacher, can't you see?  
 Look at what you've done to me!

(Henry P. Cole, 1972: 204)

## Flowers Are Red

The little boy went first day of school  
 He got some crayons and started to draw  
 He put colors all over the paper  
 For colors was what he saw  
 And the teacher said .... What you are doing young man  
 I'm painting flowers he said  
 She said .... It's not the time for art young man  
 And anyway flowers are green and red  
 There's a time for everything young man  
 And a way it should be done  
 You've got to show concern for everyone else  
 For you're not the only one  
 And she said ....  
 Flowers are red young man  
 Green leaves are green  
 There's no need to see flowers any other way  
 Than the way they always have been seen  
 But the little boy said ....  
 There are so many colors in the rainbow  
 So many colors in the morning sun  
 So many colors in a flower and I see every one  
 Well the teacher said .... You're sassy

There's ways that things should be  
And you will paint flowers the way they are  
So repeat after me ....  
And she said ....  
Flowers are red young man  
Green leaves are green  
There's no need to see flowers any other way  
Than the way they always have been seen  
But the little boy said ....  
There are so many colors in the rainbow  
So many colors in the morning sun  
So many colors in a flower  
And I see every one  
The teacher put him in a corner  
She said .... It's for your own good  
And you won't come out 'til you get it right  
And all responding like you should  
Well finally he got lonely  
Frightened though filled his head  
And he went up to the teacher  
And this is what he said .... and he said  
Flowers are red, green leaves are green  
There's no need to see flowers any other way  
Than the way they always have been seen  
Time went by like it always does  
And they moved to another town  
And the little boy went to another school  
And this is what he found  
The teacher there was smiling  
She said .... Painting should be fun  
And there are so many colors in a flower  
So let's use every one  
But that little boy painted flowers  
In neat rows of green and red  
And when the teacher asked him why  
This is what he said .... and he said  
Flowers are red, green leaves are green  
There's no need to see flowers any other way  
Than the way they always have been seen.

(Harry Chapin, 1978)

Based on the limited literature on Chinese educational practices, self-directed activity on the part of child did not appear to be a major concern in China in the 1960's and 1970's. While talking about "What is not in the Chinese program," Caldwell (1975) pointed out the virtual absence of problem-solving tasks as standard classroom activities. He reported:

At least in the preschool years, we seldom saw the child presented with new activities that required him to figure out what to do or to consider alternative solutions. Uniformly, children were being taught skills for performing preset tasks rather than strategies for approaching new problems (Caldwell, 1975: 100).

Caldwell goes on to say that "in contrast to the ever-present and typically brilliant songs, dances and theatrical performances, we rarely observed any spontaneous dramatic play. The dramatic play we observed (people on a train helping an old lady home from work, store-keeping, feeding dolls) all apparently followed a previously written scenario" (Caldwell, 1975: 101).

"The group recitation not only involved collective answers to questions, but also the playing out of little dialogues. In such cases, it was always obvious that the children knew their lines in advance and that there was no improvisation in the exchange" (Caldwell, 1975: 85).

In the classroom of four-and-a-half-year-olds we observed, the teacher had drawn a model on the blackboard, and each child was coloring six outlined balloons. The teacher was instructing the children: "Use red and yellow crayons. Stay inside the lines." She told us that the children actually could use any colors they chose; on the pictures later given to us, however, all the balloons were indeed red and yellow (Caldwell, 1975: 99).

Similarly, in another kindergarten, Caldwell (1975) reported:

The task for the children was to color with pencils a trolley bus, the outlines of which had previously been duplicated and distributed to the children. On a display board at the front of the room the teacher had placed a previously colored model slightly larger than the one the children were to color. After talking for a fairly long time about what the children were to do and how they were to color their pictures, the teacher took one of the duplicated designs, clipped it to the easel beside her, and began to color it as a model not only of structure but of procedure. Afterwards, the children worked very slowly and carefully. Some of the children still carefully working on their drawings some twenty minutes later with not a deviant color used and hardly a stroke out of place (Caldwell, 1975: 93).

From the author's experience, some of the observations were quite accurate. The author once worked as an interpreter with foreigners who visited a kindergarten in Beijing. The children presented a wonderful performance to the guests. However, when they were asked to improvise and to create their own movements according to the music, they were at a loss. The author felt that the reason they were not able to do this was that they had never been asked or encouraged to do this; it was not that they lacked the inherent ability.

Recalling her own experience in kindergarten in China in 1958, the author was never asked to write her own poems, but was required to memorize those written by someone else. The teacher told stories to the children but the children never created their own stories. In drawing and handcraft activities, children were generally required to follow the example provided by the teacher.

In order to shed more light on the self-direction domain as it exists in kindergarten programs in China and North America today, this dimension was explored in a systematic way as a part of this study.

## CHAPTER III

### METHODOLOGY

This chapter discusses the research procedures followed in this study beginning with an Overview of the study, followed by Selection of Subjects, Collection of Data, Categorization of Activities by Structural Components, Inter-observer Reliability and Analysis of Data.

#### 1. OVERVIEW OF THE STUDY

This study attempted to explore and document the structural components of kindergarten programs in two different cultures, China and Canada. Systematic observations were conducted in eight kindergarten classes in China's capital city, Beijing, and in eight kindergarten classes in Canada's capital city, Ottawa.

A "school day" for 5-year-old children in China is a complete day (from 8:00 am - 5:00 pm) while a "school day" for 5-year-old children in Canada is one morning (9:00 - 11:30 am) or one afternoon (1:00 - 3:30 pm). All program elements were recorded on three separate "school days" in each kindergarten in China and Canada.

In the Chinese sample two of the kindergartens were live-in kindergartens. The children live there for 5½ days and nights each week. The period of recording time for these schools was the same as for the Chinese day kindergartens. After all program elements were recorded in each school these elements were classified and compared to ascertain whether structural differences existed and if so, what sorts of differences.

## 2. SELECTION OF SUBJECTS

The sample selected for this study consisted of eight kindergarten classes, for 5-year-old children, from eight intact kindergartens in Beijing — the capital of China and eight kindergarten classes for 5-year-old children from eight intact kindergartens in Ottawa, the capital of Canada.

The age group was chosen on the basis of a) the expectation that this is a major opportunity for the inculcation of cultural values within an organized setting in both cultures, and b) the literature reported that cultural differences appear to already be evident at this age level.

Due to practical limitations (e.g., time, distance, finances, availability), random sampling was not possible. However, a sincere effort was made to maximize the representativeness of the sample for each country.

For the Canadian sample, the eight schools were selected by the Research Committee of the Ottawa Board of Education on the basis of providing representativeness in terms of socio-economic background (See Table 1). The sample covered a wide geographic range within the city of Ottawa.

TABLE 1

SOCIO-ECONOMICAL BACKGROUND INDEX FOR EACH OF THE EIGHT SUBJECT SCHOOLS  
IN THE CANADIAN SAMPLE

School #	Socio-economic Background
1	below average
2	average
3	above average
4	below average
5	average
6	average
7	above average
8	average

Selecting subject schools based on socio-economic background was not appropriate in China. Instead, the sample was chosen to include schools which represent the different types of administrative organizations for schools in China (See Table 2). The sample covered wide geographic range in the city of Beijing.

TABLE 2

## ADMINISTRATIVE ORGANIZATION FOR EACH OF THE EIGHT SUBJECT SCHOOLS IN THE CHINESE SAMPLE

School #	Administrative Organization
1	University administered.
2	City administered
3	Community administered
4	Air Force administered
5	City administered
6	University administered
7	Factory administered
8	Central Committee of Youth League - Government administered

## 3. COLLECTION OF DATA

Before beginning recording procedure a period of at least one school day was allowed for a warm-up period for everyone to acclimatize to the presence of an observer in the classroom.

On each of the three school days for which data was collected in each kindergarten, the observer arrived at the school before the school day began and found an unobtrusive corner in the classroom in which to sit. All activities in the program were recorded and described in detail including the teacher's instruction and the available time. Continuous observation was done for three entire "school day" programs in each kindergarten class.

"Available time" for an activity refers to the entire duration of time for which a specific activity was accessible to the children. The "available time" was recorded from the time when the teacher introduced the activity to when the teacher announced the activity was over (e.g., "Put your books away now.") or introduced the next activity (e.g., "Now go and play outside."). The recorded time was rounded off to the nearest minute. Continuous observation was conducted for three separate school days in each kindergarten both in China and Canada. An attempt was made to utilize days during the week for recorded observations as opposed to the first and last day of the school week.

Activities observed on each school day were recorded and described on a daily Data Sheet. This sheet included columns for recording the available time for the activity, for categorizing the activity, and for describing the specific activity (See Appendix A).

#### 4. CATEGORIZATION OF ACTIVITIES BY STRUCTURAL COMPONENTS

In order to classify the data collected in this study in a meaningful way, two separate sets of categories were developed, based on two major dimensions of interest: Interaction, and Self-direction. Activities were slotted according to the following structural components.

A. INTERACTION: CLASSIFICATION BY TYPE OF "INTERACTION" AMONG CHILDREN

- 1) Class activity (CL)
- 2) Individual activity (IN)
- 3) Cooperative activity (COOP)
- 4) Semi-cooperative activity (SCP)
- 5) Competitive activity (CP)

Operational Definitions of Categories Above

1. Class activity (CL): A class of children individually engage in the same activity at the same time, as a whole group. There is no structural requirement for either cooperative or competitive interaction. For example, the whole class listens to the teacher's instructions, story or music. The whole class watches the teacher's demonstration, movie or TV. Everybody in the class draws a picture, folds a figure, reads a book, does physical exercises or plays a "follow the teacher" game, at the same time. Children in the class take turns answering teacher's questions or talk about something proposed by the teacher.

2. Individual activity (IN): A class of children individually engage in activities where there is no requirement for doing the same activity as a group at the same time, nor is there any structural requirements for either cooperative or competitive interaction. For example, playing on the playground or indoor free play where children are free to play

with different things and to play by themselves; or activity stations where children engage in different tasks by choice and don't have to interact with others).

3. Cooperative activity (COOP): A class of children engage in activities where groups of two or more children (up to including the whole class) cooperate, share, do cooperative role play, sing and/or dance together as a unit, or engage in affectionate physical contact. There is a structural requirement or expectation for cooperative interaction or harmony. For example, games where children hold hands or pass balls or other<sup>4</sup> objects to each other; singing and/or clapping games with cooperative content or verses where children pass lead to each other; role playing positive interaction in a dramatic setting such as in a store between customers and salesperson; inclusion games such as "I've lost my partner" where children skip around the circle and bring in more and more people to skip together; singing in harmony as a group; performing a dance routine as a group; making jello or pumpkin bread together as a group; show and tell when sharing "show things" with others.

4. Semi-cooperative (SCP): A class of children engage in an activity which is structured to elicit cooperative interaction among a group of participants but competitive interaction between groups. For example, a group relay race with two or more groups; a game like "picking the beans" where two groups compete to see who can get their beans back to the basket "first".

5. Competitive activity (CP): A class of children engage in an activity which is structured to elicit competitive interaction among individual participants. The structure encourages children to compete against other children on an individual basis without any cooperation. For example, elimination games such as traditional musical chairs and other games where children are supposed to sit down in a circle after hearing a signal and where slower ones are eliminated; chasing games where chasers compete against all others with no cooperation.

#### B. SELF-DIRECTION: CLASSIFICATION BY EXTENT OF SELF-DIRECTION

- 1) Teacher (or other) directed activity (TD)
- 2) Partially self-directed activity (PSD)
- 3) Self-directed activity (SD)

#### Operational Definitions of Categories Above

1. Teacher (or other) directed activity (TD): A class of children is presented with an activity where the teacher pre-sets not only the task theme within which the children must work or play, but also the specific content which they must act out within the theme. This activity provides no opportunity or very limited opportunity for a self-directed approach on the part of children. For example, children are presented with pictures and asked to tell the pre-set story about each picture; children practice a pre-set routine or program, directly repeat the model presented by the teacher, have to respond in only one "correct" way, have to engage in structured games where a very specific sequence or step-by-step pattern must be followed, or where the children must model the teacher's movements or actions.

\*Specific examples include listening to story, music, or instructions presented by teacher; watching teacher's demonstrations; doing exercises or playing a game with preset pattern led by teacher; run a relay race; drawing, folding, or cutting and pasting a model given by teacher; answering one-correct-answer questions asked by teacher; learning or performing a song, rhyme or preset dance routine. Other activities such as watching television or movies and listening to "others" recitations were classified as "other" directed and also included in this teacher/other directed category.

2. Partially self-directed activity (PSD): A class of children is presented with an activity where the teacher assigns a task theme within which children must work or play but are free to act out the theme in their own way. This activity provides some opportunity for a self-directed approach on the part of children, but is not entirely self-directed. For example, children talk about one given topic freely such as "things that happened at home", "my mother", "our last trip", etc.; children go outdoors and look for "spring" (given theme); show and tell where children are required to bring something by their choice to school and talk about it to the class; children make suggestions about writing a letter to someone (which the teacher writes down).

3. Self-directed activity (SD): A class of children is given the opportunity to engage in an activity where the children are free to choose both the task theme within which they will work or play and the way they will act out the content of the theme. This activity provides for a completely self-directed approach on the part of children.

## 5. INTER-OBSERVER RELIABILITY

The structural definitions for this study went through substantial testing "on-site" in Canada and China and were refined several times before they were used in their final form. Once all the revisions and refinements had been completed, the definitions were then utilized for classification purposes and for inter-rater reliability testing.

The inter-rater reliability was done two ways. First, observer #1 (researcher) and observer #2 (adviser) sat in the same classroom (or play area) independently recording the activities and classifying them according to the structural components. The results of these two observations demonstrated that two independent observers could reliably record and classify the program elements. This was true in both China and Canada (see Tables 3, 4 and 5).

TABLE 3

## ON-SITE INTER-OBSERVER RECORDING AND RELIABILITY TEST IN CHINESE KINDERGARTEN

Activity	Interaction		Self-Direction	
	Observer 1	Observer 2	Observer 1	Observer 2
1. Classroom teaching with teacher in front on numbers	CL	CL	TD	TD
2. Children pick up eight dots - directed by teacher and work individually at tables	CL	CL	TD	TD
3. Child find the number "1" directed by teacher in front of the class	CL	CL	TD	TD
4. Outdoor free play	IN	IN	SD	SD
5. Station activity where children can move from one to the other	IN	IN	SD	SD
6. Outdoor free play	IN	IN	SD	SD
7. Outdoor "windmill" game where kids follow a pre-set pattern, hand in hand	COOP	COOP	TD	TD
8. Outdoor game "dodgeball"	CP	CP	TD	TD
9. Outdoor free play	IN	IN	SD	SD
10. Indoor free play	IN	IN	SD	SD
	agreement = 100%		agreement = 100%	

CL - Class Activity  
 IN - Individual Activity  
 COOP - Cooperative Activity  
 SCP - Semi-Cooperative Activity

CP - Competitive Activity  
 TD - Teacher-Directed Activity  
 PSD - Partially Self-Directed Activity  
 SD - Self-Directed Activity

TABLE 4

## ON-SITE INTER-OBSERVER RECORDING AND RELIABILITY TEST IN CHINESE KINDERGARTEN

Activity	Interaction		Self-Direction	
	Observer 1	Observer 2	Observer 1	Observer 2
1. Morning exercises led by teacher	CL	CL	TD	TD
2. Language learning led by teacher	CL	CL	TD	TD
3. Painting the model presented by teacher	CL	CL	TD	TD
4. Outdoor free play	IN	IN	SD	SD
5. Teacher told a story to the class	CL	CL	TD	TD
6. Outdoor free play	CL	CL	TD	TD
7. Teacher told a story to the class	CL	CL	TD	TD
	agreement = 100%		agreement = 100%	

CL - Class Activity  
 IN - Individual Activity  
 COOP - Cooperative Activity  
 SCP - Semi-Cooperative Activity

CP - Competitive Activity  
 TD - Teacher-Directed Activity  
 PSD - Partially Self-Directed Activity  
 SD - Self-Directed Activity

TABLE 5

## ON-SITE INTER-OBSERVER RECORDING AND RELIABILITY TEST IN CANADIAN KINDERGARTEN

Activity	Interaction		Self-Direction	
	Observer 1	Observer 2	Observer 1	Observer 2
1. Prayer	CL	CL	TD	TD
2. Singing in a circle	COOP	COOP	TD	TD
3. Teacher gave instruction	CL	CL	TD	TD
4. Teacher asked the date children count numbers	CL	CL	TD	TD
5. Teacher wrote down a rhyme and asked kids to find certain letter	CL	CL	TD	TD
6. Game "I've lost my partner" where kids skip in the circle and find a friend	COOP	COOP	TD	TD
7. Indoor free play	IN	IN	SD	SD
8. French class with story and teacher led game	CL	CL	TD	TD
9. Movie	CL	CL	TD	TD
	agreement = 100%		agreement = 100%	

CL - Class Activity  
 IN - Individual Activity  
 COOP - Cooperative Activity  
 SCP - Semi-Cooperative Activity

CP - Competitive Activity  
 TD - Teacher-Directed Activity  
 PSD - Partially Self-Directed Activity  
 SD - Self-Directed Activity

A second check on reliability was done after the data had been recorded and classified by the researcher (observer #1). Observer #2 was given the description of activities along with the instructions which the teacher gave to the children. He then independently classified each activity by utilizing the definitions provided for the dimensions of interaction and self-direction. The results of this inter-rater reliability check clearly showed that an independent rater who was familiar with the definitions could classify the activities in the same manner as the principal researcher (See Tables 6, 7, 8, and 9).

TABLE 6

INTER-RATER RELIABILITY TEST BASED ON INFORMATION RECORDED ON THE DATA SHEET FOR CHINESE KINDERGARTEN.

Activity	Interaction		Self-Direction	
	Observer 1	Observer 2	Observer 1	Observer 2
1. Exercises led by teacher	CL	CL	TD	TD
2. Indoor free play	IN	IN	SD	SD
3. Outdoor free play	IN	IN	SD	SD
4. Paper folding following a model	CL	CL	TD	TD
5. Outdoor free play	IN	IN	SD	SD
6. Children in the class try individually to find an object hidden by the teacher	CL	CL	TD	TD
7. Indoor free play	IN	IN	SD	SD
8. Chasing game	CP	CP	TD	TD
9. Two people hold hands and rotate	COOP	COOP	TD	TD
10. Outdoor free play	IN	IN	SD	SD
11. Indoor free play	IN	IN	SD	SD
12. Outdoor free play	IN	IN	SD	SD
	agreement = 100%		agreement = 100%	

CL - Class Activity  
 IN - Individual Activity  
 COOP - Cooperative Activity  
 SCP - Semi-Cooperative Activity

CP - Competitive Activity  
 TD - Teacher-Directed Activity  
 PSD - Partially Self-Directed Activity  
 SD - Self-Directed Activity

TABLE 7

INTER-RATER RELIABILITY TEST BASED ON INFORMATION RECORDED ON THE DATA SHEET FOR  
CANADIAN KINDERGARTEN

Activity	Interaction		Self-Direction	
	Observer 1	Observer 2	Observer 1	Observer 2
1. Singing in circle	COOP	COOP	TD	TD
2. Counting numbers	CL	CL	TD	TD
3. Some children do "show and tell" and share object with others in the class	COOP	COOP	PSD	PSD
4. Making pumpkin bread together-led by teacher	COOP	COOP	TD	TD
5. Teacher announces rules for free play	CL	CL	TD	TD
6. Indoor free play	IN	IN	SD	SD
7. French class led by teacher	CL	CL	TD	TD
8. Singing and doing pre-set routine to the music as a whole group	COOP	COOP	TD	TD
9. Teacher showed weight scale to children and the bread they made	CL	CL	TD	TD
10. Reciting a rhyme as a group	CL	CL	TD	TD
	agreement = 100%		agreement = 100%	

CL - Class Activity  
IN - Individual Activity  
COOP - Cooperative Activity  
SCP - Semi-Cooperative Activity

CP - Competitive Activity  
TD - Teacher-Directed Activity  
PSD - Partially Self-Directed Activity  
SD - Self-Directed Activity

TABLE 8

INTER-RATER RELIABILITY TEST BASED ON INFORMATION RECORDED ON THE DATA SHEET FOR  
CHINESE KINDERGARTEN

Activity	Interaction		Self-Direction	
	Observer 1	Observer 2	Observer 1	Observer 2
1. Children read teacher distributed work	CL	CL	TD	TD
2. Children play with construction toys	CL	CL	PSD	PSD
3. Exercises led by teacher	CL	CL	TD	TD
4. Teacher led lesson on math	CL	CL	TD	TD
5. Recess	IN	IN	SD	SD
6. Free painting class	CL	CL	PSD	PSD
7. Watching T.V.	CL	CL	TD	TD
8. Indoor free play	IN	IN	SD	SD
9. Watching T.V.	CL	CL	TD	TD
10. Watch puppet show	CL	CL	TD	TD
	agreement = 100%		agreement = 100%	

CL - Class Activity  
IN - Individual Activity  
COOP - Cooperative Activity  
SCP - Semi-Cooperative Activity

CP - Competitive Activity  
TD - Teacher-Directed Activity  
PSD - Partially Self-Directed Activity  
SD - Self-Directed Activity

TABLE 9

INTER-RATER RELIABILITY TEST BASED ON INFORMATION RECORDED ON THE DATA SHEET FOR  
CANADIAN KINDERGARTEN

Activity	Interaction		Self-Direction	
	Observer 1	Observer 2	Observer 1	Observer 2
1. Singing in a circle	COOP	COOP	TD	TD
2. Teacher and children talked about news from home	CL	CL	PSD	PSD
3. Teacher asked date	CL	CL	TD	TD
4. Exercises led by teacher	CL	CL	TD	TD
5. Teacher told a story	CL	CL	TD	TD
6. Teacher gave instructions	CL	CL	TD	TD
7. Indoor free play	IN	IN	SD	SD
8. Sing in circle	COOP	COOP	TD	TD
9. French class led by teacher	CL	CL	TD	TD
10. Watching movie	CL	CL	TD	TD
	agreement = 100%		agreement = 100%	

CL - Class Activity  
IN - Individual Activity  
COOP - Cooperative Activity  
SCP - Semi-Cooperative Activity

CP - Competitive Activity  
TD - Teacher-Directed Activity  
PSD - Partially Self-Directed Activity  
SD - Self-Directed Activity

## 6. ANALYSIS OF DATA

### Data Analysis

Drawing upon the raw data recorded on the data sheets, which included a description of each activity and the time allotted for each activity, several sorts of analyses were done.

For purposes of statistical analysis, each school was treated as a single subject, giving eight subjects in China and eight subjects in Canada, which met the requirements for using the non-parametric Mann-Whitney U Test. This test is based on the sum of ranks (Marascuilo and McSweeney, 1977).

To obtain a single score on each category for each school, the three "school days" were averaged. The relative time for each category for each school was calculated by assessing the proportion of time scheduled for one category over the sum of available time for all categories (See Table 10).

TABLE 10

THE PROCEDURE FOLLOWED FOR CALCULATING RELATIVE TIME FOR  
EACH STRUCTURAL CATEGORY

School #1	Day 1	Day 2	Day 3	Average Time (Min)	Relative Time
CL	84	87	61	77.3333	.5844
IN	41	42	52	45	.3400
COOP	0	11	19	10	.0756
SCD	0	0	0	0	0
CP	0	0	0	0	0
TD	75	95	77	82.3333	.6222
PSD	9	0	3	4	.0302
SD	41	45	52	46	.3476
Total Time for Average Day in Minutes				132.3333	

CL - Class Activity  
IN - Individual Activity  
COOP - Cooperative Activity  
SCP - Semi-Cooperative Activity

CP - Competitive Activity  
TD - Teacher-Directed Activity  
PSD - Partially Self-Directed Activity  
SD - Self-Directed Activity

To utilize the Mann-Whitney U test, each of the sixteen kindergarten classes was ranked based on the relative time score for each category. A statistical comparison between the two samples was done in each of the following areas:

A. INTERACTION DIMENSION:

1. Class activity (CL)
2. Individual activity (IN)
3. Cooperative activity (COOP)
4. Semi-cooperative activity (SCP)
5. Competitive activity (CP)

B. SELF-DIRECTION DIMENSION:

1. Teacher (or other) -directed activity (TD)
2. Partially self-directed activity (PSD)
3. Self-directed activity (SD)

The .10 level of significance was established as meeting the criteria for statistical significance in this study. It was felt that this would help highlight important relative differences between countries in this exploratory study.

## CHAPTER IV

### RESULTS

This chapter is divided into three major sections: an overview of the programs observed in China and Canada, the results of the statistical analysis, and results with no statistical analysis.

#### 1. OVERVIEW

To give the reader a general picture of the programs observed in both China and Canada, a profile of the "average school day" within each sample is presented in Figure 1, and the total time devoted to each major classification category and its proportion within each sample is presented.

#### The Average School Day

The "average school day" was calculated from the timetable by averaging the amount of time scheduled in the timetable for each major daily activity in the eight Chinese schools, and following the same procedure for the eight Canadian schools, even though there were some variations in their timetables between schools (see Appendix B for detailed timetables for each school).

In the average school day in the Chinese sample the children attended kindergarten for 10 hours per day, 6 days per week, for 11 months of the year. In a full year children had between 2 weeks and 2 months of vacation depending upon the administrative organization. In some schools within the Chinese sample the children could attend school all 12 months of the year if their parents so desired.

FIGURE 1

A TYPICAL SCHOOL DAY WITHIN THE CHINESE SAMPLE  
AND THE CANADIAN SAMPLE

	CHINESE SAMPLE	CANADIAN SAMPLE
7:30	arrival	
8:00	exercises	
8:30	breakfast	
9:00	free play	
9:30	class #1	
10:00	recess	
10:30	class #2	
11:00	free play and games	
11:30	lunch	
12:00	nap	12:30 arrival
12:30		13:00 circle time
13:00		13:30 free play
13:30		14:00 French/English
14:00		14:30 snack
14:30		15:00 movie, music, circle
15:00	snack	15:30 dismissal
15:30	free play and games	
16:00		
16:30		
17:00	supper	
17:30	dismissal	

The average school day in the Chinese sample was to arrive at 7:30 am, do teacher led exercises at 7:45, breakfast at 8:00, free play at 8:30, class at 9:00, recess at 9:30, class at 9:45, free play and games at 10:15, hot lunch at 11:00, nap at 12:00, snack at 2:30, free play and games at 3:15, supper at 5:00, and dismissal at 5:30 pm.

In the average school day in the Canadian sample the children attended kindergarten for 2 hours and 45 minutes per day, 5 days per week, for 8 months of the year. The children attended either a morning class or an afternoon class. In a morning class the children arrived at 8:45 am, had circle time at 9:00, free play at 9:30, French or English class at 10:30, snack at 11:00, movie/music or circle time at 11:10, and dismissal at 11:30 am. In an afternoon class the children arrived at 12:45 pm, had circle time at 1:00, free play at 1:30, French or English class at 2:30, snack at 3:00, movie/music or circle time at 3:10, and dismissal at 3:30 pm.

Given the fact that in the Canadian kindergartens observed, children attended school either in the morning or in the afternoon, they spent the other half of the day either in day-care centers or at home where normally the activities were likely similar to the afternoon part of the observed Chinese programs (e.g., no or minimal teacher-directed activities). To take this fact into consideration and analyze the data in detail, in addition to comparing the full day Chinese program with the half day Canadian program, comparisons between the morning part of the Chinese sample (half day) and the Canadian sample (half day) were also done.

The total time for the average school day within the Chinese sample was found to be 585 minutes, and 150 minutes within the Canadian sample. The total time for class, circle time, movie, music and exercises was 71.25 minutes for the Chinese sample and 80.63 minutes for the Canadian sample. The total time for free play and games in the Chinese sample was 183.13 minutes in the full day program and 95 minutes in the morning part of the program. In the Canadian sample 63.75 minutes were allotted for play and games in the daily program (see Table 11).

TABLE 11

COMPARISON OF AVERAGE SCHOOL DAYS WITHIN THE CHINESE SAMPLE  
AND THE CANADIAN SAMPLE

ITEMS	CHINA	CANADA
Total time (minutes) for the average school day	585'	150'
Total time for class, circle time, movie, music and exercises	71.25'	80.63'
Total time for free play and games	Full day	183.13'
	Morning	95'
		63.75'

The Total Time for Each Major Category and Its Proportion

The total time for all the activities actually observed in eight schools (three days for each) was divided by the major classification categories and then comparisons were made between the Chinese sample and the Canadian sample (see Table 12).

Differences worth noting were as follows: In the Canadian sample, 52.2% of the total time was devoted to class activity as compared to 38.9% in the Chinese sample. Forty-nine point two per cent of the total time was devoted to individual activity in the Chinese sample while compared to 37% in the Canadian sample. Only 0.2% of the total time was spent on competitively structured activity in the Canadian sample as compared to 2.9% in the Chinese sample.

In the Canadian sample, 57.5% of the total time was devoted to teacher (or other) directed activity as compared to 47.1% in the Chinese sample. In the Chinese sample, 48.8% of the total time was spent on self-directed activity as compared to 37% in the Canadian sample (see Table 12).

TABLE 12

COMPARISON OF TOTAL TIME FOR EACH MAJOR CATEGORY AND ITS PROPORTION BETWEEN THE CHINESE SAMPLE AND THE CANADIAN SAMPLE

	CHINA		CANADA	
	Total Time	%	Total Time	%
total time for all the activities observed (8 schools x 3 days)	5462'		3163'	
class activity	2127'	38.9	1651'	52.2
individual activity	2686'	49.2	1169'	37.0
cooperative activity	432'	7.9	336'	10.6
semi-cooperative activity	60'	1.1	0	0
competitive activity	157'	2.9	7'	0.2
teacher (other) directed activity	2576'	47.1	1819'	57.5
partially self-directed activity	222'	4.1	175'	5.5
self-directed activity	2664'	48.8	1169'	37

## 2. RESULTS OF THE STATISTICAL ANALYSIS

The non parametric Mann-Whitney U test was utilized to analyze the data in this study. The formula for the statistical procedure are as follows:

$$U = n_1 n_2 + \frac{n_1 (n_2 + 1)}{2} - R_1$$

$$U' = n_2 n_2 + \frac{n_2 (n_2 + 1)}{2} - R_2$$

In this study,  $n_1$  was the Chinese kindergarten classes observed and  $n_2$  was the Canadian kindergarten classes observed.  $R_1$  and  $R_2$  referred to the ranks for the Chinese sample and the Canadian sample respectively.

### A. U-Test Results for Class Activity

1. More relative time was scheduled for "class activity" (where the entire class does the same thing at the same time) in the Canadian programs than in the Chinese programs. This was significant at the .08 level (see Table 13).

2. There was no significant difference in the amount of relative time scheduled for class activity when the morning part of the Chinese programs was compared with the Canadian programs (see Table 14).

B. U-Test Results for Individual Activity

1. More relative time was scheduled for individual activity in the Chinese programs than the Canadian programs. This was significant at the .10 level (see Table 15).

2. There was no significant difference in the amount of relative time scheduled for individual activity when the morning part of the Chinese programs was compared with the Canadian programs (see Table 16).

TABLE 13

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR CLASS ACTIVITY  
CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 85 = 15$$

$$U' = 100 - 51 = 49$$

$$p = 0.08$$

$R_1$	$N_1$	$N_2$	$R_2$
5	.5381	.5063	8
15	.2459	.4939	9
10	.4429	.6269	2
11	.4172	.3280	12
16	.1961	.5366	6
1	.7120	.5161	7
14	.2622	.5952	4
13	.3270	.6175	3
85			51

TABLE 14

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR CLASS ACTIVITY  
MORNING PART OF CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 72 = 28$$

$$U' = 100 - 64 = 36$$

$$p = 0.72$$

$R_1$	$N_1$	$N_2$	$R_2$
1	.7440	.5063	10
12	.3577	.4939	11
8	.5263	.6269	3
5	.5968	.3280	14
16	.3004	.5366	7
2	.6346	.5161	9
15	.3266	.5952	6
13	.3422	.6175	4
72			64

TABLE 15

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR INDIVIDUAL ACTIVITY  
CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 52 = 48$$

$$U' = 100 - 84 = 16$$

$$p = 0.10$$

$R_1$	$N_1$	$N_2$	$R_2$
6	.4076	.3401	13
2	.6862	.3042	14
12	.3429	.2569	15
5	.4831	.5809	4
1	.7052	.3639	9
16	.2333	.3549	10
3	.5610	.3700	8
7	.4070	.3475	11
52			84

TABLE 16

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR INDIVIDUAL ACTIVITY  
MORNING PART OF CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 70 = 30$$

$$U' = 100 - 66 = 34$$

$$p = 0.88$$

$R_1$	$N_1$	$N_2$	$R_2$
16	.2259	.3401	10
3	.5632	.3042	14
13	.3263	.2569	15
11	.3360	.5809	1
4	.5570	.3639	6
9	.3445	.3549	7
2	.5789	.3700	5
12	.3311	.3475	8
70			66

C. U-Test Results for Cooperative Activity

1. There was no significant difference in the amount of relative time scheduled for cooperative activity between the Chinese programs and the Canadian programs (see Table 17).

2. There was no significant difference in the amount of relative time scheduled for cooperative activity when the morning part of the Chinese programs was compared with the Canadian programs (see Table 18).

D. U-Test Results for Teacher (or other) Directed Activity

1. There was no significant difference in the amount of relative time scheduled for teacher (or other) directed activity between the Chinese programs and the Canadian programs (see Table 19).

2. There was no significant difference in the amount of relative time scheduled for teacher (or other) directed activity when the morning part of the Chinese programs was compared with the Canadian programs (see Table 20).

TABLE 17

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR COOPERATIVE ACTIVITY  
CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 76 = 24$$

$$U' = 100 - 60 = 40$$

$$p = 0.44$$

$R_1$	$N_1$	$N_2$	$R_2$
14	.0362	.1536	2
11	.0679	.1849	1
6	.1071	.1162	5
7	.0997	.0911	9
10	.0770	.0995	8
13	.0453	.1290	4
12	.0506	.0348	16
3	.1395	.0350	15
76			60

TABLE 18

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR COOPERATIVE ACTIVITY  
MORNING PART OF CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 79 = 21$$

$$U' = 100 - 57 = 43$$

$$p = 0.28$$

$R_1$	$N_1$	$N_2$	$R_2$
16	0	.1536	3
10	.0791	.1849	1
7	.1053	.1162	5
12	.0672	.0911	9
6	.1084	.0995	8
15	.0209	.1290	4
11	.0704	.0348	14
2	.1788	.0350	13
79			57

TABLE 19

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR TEACHER-DIRECTED  
(OR OTHER) ACTIVITY  
CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 81 = 19$$

$$U' = 100 - 55 = 45$$

$$p = 0.19$$

$R_1$	$N_1$	$N_2$	$R_2$
10	.5743	.6297	5
15	.3274	.5815	9
7	.5929	.6697	1
11	.4249	.3667	13
16	.2948	.6361	3
2	.6467	.5830	8
14	.3400	.6300	4
6	.5930	.3975	12
81			55

TABLE 20

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR TEACHER-DIRECTED  
(OR OTHER) ACTIVITY,  
MORNING PART OF CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 71 = 29$$

$$U' = 100 - 65 = 35$$

$$p = 0.80$$

$R_1$	$N_1$	$N_2$	$R_2$
1	.7440	.6297	6
12	.4565	.5815	9
7	.6211	.6697	2
10	.5565	.3667	16
13	.4430	.6361	4
11	.1407	.5830	8
14	.4095	.6300	5
3	.6689	.3975	15
71			65

E. U-Test Results for Partially Self-Directed Activity

1. There was no significant difference in the amount of relative time scheduled for partially self-directed activity between the Chinese programs and the Canadian programs (see Table 21).

2. There was no significant difference in the amount of relative time scheduled for partially self-directed activity when the morning part of the Chinese programs was compared with the Canadian programs (see Table 22).

F. U-Test Results for Self-Directed Activity

1. More relative time was scheduled for self-directed activity in the Chinese programs than in the Canadian programs. This was significant at the .10 level (see, Table 23).

2. There was no significant difference in the amount of relative time scheduled for self-directed activity when the morning part of the Chinese programs was compared with the Canadian programs (see Table 24).

TABLE 21

MANN-WHITNEY U TEST TIME FOR PARTIALLY SELF-DIRECTED ACTIVITY  
CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 73 = 27$$

$$U' = 100 - 63 = 37$$

$$p = 0.65$$

$R_1$	$N_1$	$N_2$	$R_2$
10	.0181	.0302	9
11	.0163	.1144	2
6	.0643	.0734	5
4	.0920	.0524	8
14.5	0	0	14.5
1	.1200	.0622	7
12	.0090	0	14.5
14.5	0	.1050	3
73			63

TABLE 22

MANN-WHITNEY U TEST TIME FOR PARTIALLY-DIRECTED ACTIVITY  
MORNING PART OF CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 73 = 27$$

$$U' = 100 - 63 = 37$$

$$p = 0.65$$

$R_1$	$N_1$	$N_2$	$R_2$
70	.0301	.0302	9
11	.0237	.1144	2
7	.0526	.0734	5
3	.1075	.0524	8
14.5	0	0	14.5
1	.1148	.0622	6
12	.0126	0	14.5
14.5	0	.1050	4
70			63

TABLE 23

MANN-WHITNEY U TEST FOR RELATIVE TIME FOR SELF-DIRECTED ACTIVITY  
CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 52 = 48$$

$$U' = 100 - 84 = 16$$

$$p = 0.10$$

$R_1$	$N_1$	$N_2$	$R_2$
6	.4076	.3401	13
2	.6563	.3041	14
12	.3428	.2569	15
5	.4831	.5809	4
1	.7052	.3639	9
16	.2333	.3548	10
3	.6510	.3700	8
7	.4070	.3475	11
52			84

TABLE 24

MANN-WHITNEY U TEST TIME FOR SELF-DIRECTED ACTIVITY  
MORNING PART OF CHINESE SAMPLE ( $N_1$ ) VS. CANADIAN SAMPLE ( $N_2$ )

$$U = 100 - 70 = 30$$

$$U' = 100 - 66 = 34$$

$$p = 0.88$$

$R_1$	$N_1$	$N_2$	$R_2$
16	.2259	.3401	10
4	.5198	.3041	14
13	.3263	.2569	15
11	.3360	.5809	1
3	.5570	.3639	6
9	.3445	.3548	7
2	.5779	.3700	5
12	.3311	.3475	8
70			66

## CHAPTER V

### DISCUSSION

This chapter has been divided into nine topics beginning with an overview, followed by differences related to cooperation, differences related to competition, differences related to self-direction, differences related to teacher-direction, advantages of partially self-directed activity, reflection on the literature, difficulties in this study, and in pursuing a good balance.

#### 1. OVERVIEW

The statistics have shown that comparing the full school days observed in China with the school days (morning or afternoon) observed in Canada, there was more relative time scheduled for individual and self-directed activity in China and more relative time scheduled for class activity in Canada. No significant difference was found in any other categories.

The statistics have also shown that comparing the morning part of the Chinese school days observed with the Canadian school days observed, there was no significant difference between two countries for any category.

The significant differences detected in the comparison between full day program in two samples may have been influenced by the fact that the Chinese children attended school for a much longer time each day than the Canadian children. Individual and self-directed activity in both samples was comprised mainly of free play. The Chinese children normally had free play before morning classes and for the whole afternoon. This greater amount of total time and free play time in the pre-school environment for the Chinese sample also influences the lesser relative time for class activity which was mainly composed of lessons, circle time, music and movies.

The statistical analysis did not demonstrate that the Chinese programs had relatively more cooperative structures and the Canadian programs relatively more self-directed structures as had been expected. However, the programs observed in the two samples did present the researcher with a different general picture in these two areas. In order to shed light on what was operating in the programs that the structural approach might have missed, a closer examination was conducted based on the raw data, and the author's experience of several months' observation in sixteen kindergartens in Ottawa and Beijing and conversations with more than 25 teachers and directors in both countries.

It was apparent that part of the unwritten curriculum which fell outside the structure of activities, such as the message carried in the pictures, songs, stories, rhymes, shows, teacher's expectations and reinforcement was very different between two samples. It is interesting

to note that the Chinese philosopher Mao who was in power for 27 years in China always maintained that man's social being determined his thinking; however, his thinking also acts on his being in return. His remarks surely held true in this case and his thinking did play an important role in making the difference.

## 2. DIFFERENCES RELATED TO COOPERATION

### Teacher's Expectations and Reinforcement

In addition to the differences noted in the content of pictures, songs, stories, rhymes and shows (see table 27) the teacher's attitude and reinforcement in the Canadian kindergartens suggested that getting along, taking care of oneself, being fair and not offending others were the main expectations for children. From the author's observation, teachers sometimes solved a conflict such as grabbing toys by suggesting children share their play things, but they never taught sharing in the first place before the conflict happened. Sometimes teachers told children to ask others for help if needed, but they never taught children to offer their own help to the others. Sometimes, helping behavior happened spontaneously, however it didn't seem to receive any reinforcement from the teacher.

Contrary to this, teachers in the Chinese kindergartens observed always reminded children of sharing before free play started. They also gave very positive timely feedback when children's helping behavior did occur.

### Free Play

By definition, there was no structured requirement for interaction among children during free play. However, the type of activities which were available during free play made a clear difference in the extent of interaction. In the Chinese kindergartens observed, many teachers put out role-play stations for free play such as play house, doctor's office, cook, school, zoo and store which elicited interaction and cooperation among children. However, there was only one of these kinds of activity observed in the Canadian sample, which was playhouse.

### Impression of Children's Behavior

In some of the Canadian kindergartens observed during free play time, it was really hard to find even two children playing together rather than engaging in parallel play. In the Chinese kindergartens observed, it was the norm that children were playing together. In addition, in China children's social competency in helping was developed through teaching why to help, when to help and how to help, from different learning channels. The children exhibited a more extensive repertoire in helping behavior (such as consoling, taking care of a newcomer, making a bed for others, etc.)

### 3. DIFFERENCE RELATED TO COMPETITION

In the Chinese kindergartens observed, no rejection or elimination was observed in the competitive or semi-competitive games. Teachers presented the game as something fun to do. Instead of just winning, teachers reinforced honesty, fair play, perseverance and cooperation in the games. The whole class often clapped spontaneously for the winner(s) at the end of the game. Normally the "loser(s)" would sing a song for the whole class, in which case before long the whole class started clapping and singing along. It would have been hard for them to imagine that a child felt sad and wept during a game just because he was caught, which was observed twice in the Canadian kindergartens. Attitude appeared to come into play to make the difference. Perhaps if Canadian children were "taught" to take care of each other, especially the younger ones, they would practice this with their younger brothers and sisters instead of engaging in sibling rivalry.

As Mao stated: "his thinking would act on his being." They would interpret situations differently.

### 4. DIFFERENCES RELATED TO SELF-DIRECTION

Even though an "education reform" was carried out in the past few years in China, with new emphasis on self-direction and on creativity, it is still hard to change the traditional mentality over night. In a free drawing class observed, the teacher kept on checking around

and asking children "where is the door of your house?", "how come the truck is in the sky?", etc. As a result of this kind of "hidden structure" it was also observed several times that in different schools in free drawing class, only a minority of the class (e.g., 3 out of 28 children) actually went beyond modeling what the teacher had taught before. In contrast to this in the Canadian kindergartens, when asked to color a pre-drawn jacket (model) a child freely added a face and pants to it, and several others followed her lead.

#### 5. DIFFERENCES RELATED TO TEACHER-DIRECTION

##### Rigid vs. Flexible Teacher-Direction

D

Within the category of teacher-directed activity, it was felt that there was a clear difference in the directing style (rigid vs. flexible) between teachers in the two countries (see table 28), even though the relative time of teacher directed activity did not separate programs statistically.

For example, in language class, most of the teachers observed in the Canadian kindergartens were very playful. They combined stories, music and games into their teaching. Children were observed to be active and happy in the class. But in the Chinese kindergartens observed, the prevalent pattern of teaching was very traditional and outmoded. Children generally sat there passively listening to teacher's instructions or waiting for their "turn" to practice, which only came

once or twice in a thirty-minute class. Several language classes in China observed were especially rigid. All the children had to do was to repeat a story told by the teacher word for word in exactly the same order.

### Emphasis of Teacher-Directed Activity

In the Chinese kindergarten, it was felt that the emphasis of the teacher-directed activity was very much on the end product instead of the process of the activity. Clean and neat drawings were put on the wall. Uniform dance performances were presented to honored guests. Those "end products" appeared to attract much more attention and appreciation than how the children carried it out and benefitted from it. As a result of this task-orientation, teachers normally gave very restricted and detailed step-by-step instructions, even in art and supervised very closely. Children were pushed to hurry along the preset channel into the end product. Any "fooling around" or "trial and error" wasn't accepted, even though this is more important and meaningful for a child's learning than just the end product.

### 6. ADVANTAGE OF PARTIALLY SELF-DIRECTED ACTIVITY

In addition to free play, partially self-directed activity appeared to be a good medium for nurturing creativity (see examples drawn from the raw data in Appendix D).

Under this structure, teachers can provide themes or stimuli which are appropriate for children's capability to bring out their potential to the fullest. With the teacher's input, other qualities such as cooperation can also be cultivated at the same time. It was unfortunate that not many partially self-directed activities were evident in either country. It was felt that this is an area having much to offer and which warrants more study.

#### 7. REFLECTION ON THE LITERATURE

Based on the literature review one would conclude that Chinese children were seldom presented with any activities that required a self-directed approach in the preschool years. Uniformly, they were reported as being taught skills for performing preset tasks rather than strategies for approaching new problems (Caldwell, 1985). The results of this study did not support the statements made by foreign visitors in the 1970s. The discrepancy could relate to the fact that it was the common practice for Chinese kindergartens to arrange performances out of hospitality, rather than presenting a normal school day to foreign visitors. It could also relate to an education "reform" introduced in the 1980s which was aimed at nurturing more independence and creativity among the next generation.

It was also reported in the literature that the Chinese children never pushed one another, never grabbed toys and never showed hostility toward others in their day-to-day life (Sidel, 1972). This was not

supported by the author's observation in this study. The discrepancy could relate to the cultural changes that took place in the last ten to twenty years in China such as 1. 1970s "single child policy", which tended to make the only child more self-centered; and 2. 1980s "open policy" and "new economic policy", which switched the emphasis from cooperation to competition in the society and brought in mass media programs from "outside" which included violence. It could also relate to the fact that foreign visitors did not have access to normal programs conducted in their normal day-to-day manner, and did not observe for extended periods of time.

This was the first systematic study conducted on pre-school learning structures in China. Previous reports were based on relatively short-term observations and mostly impressions. This was also the first time that observations were conducted and reported by a Chinese citizen who was raised and still lived in China. Previous reports came from foreign visitors who did not have the same access to complete programs over a long period of time and in many cases who lack proficiency in Chinese cultural and language skills. These differences likely affected the different impressions reported in previous literature.

## 8. DIFFICULTIES IN THIS STUDY

A. There was no accepted procedure to follow to get into the Chinese kindergartens to do the observations. Great amounts of time and energy were spent on organizing and gaining access to do the observations.

B. Because of the practical limitations, it was impossible to start the observations in China and Canada at the same time of the school year which might have caused slight differences in the results.

C. It was beyond the scope of this study to try to develop a measure which could tell the extent to which an individual was self-directed. However, some light would be shed on the self-direction issue by looking at the opportunity given to children to direct themselves and other variables within school.

## 9. IN PURSUIT OF GOOD BALANCE

As a result of this study and subsequent reflections, some interesting questions come to mind. Was it always the case that controlled orderliness and prosocial behavior were gained at the expense of creativity? Would it be possible to nurture cooperation and self-direction among children at the same time?

Looking through all the methods utilized to promote cooperation recorded in the Chinese programs and the methods utilized to foster self-direction recorded in the Canadian programs (see Appendices E and F), there did not seem to be any contradiction in their basic nature. Moreover, it appears necessary to nurture both in order to raise fully functioning children. The "delicate balance" which Parnes and Biondi (1975) were seeking appears to provide excellent evidence for the necessity for obtaining harmony and unity of opposites.

This delicate balance concept is dramatically presented in an illustrated book entitled THE DOT AND THE LINE (1963). As you read the synopsis below, ask yourself, Am I a rigid line, a chaotic squiggle, or have I discovered my dynamic balance between the two extremes?

Essentially the book portrays the trials and tribulations of a very straight, rigid line as he attempts to become more free and open, more uninhibited and spontaneous, in order to win the love of a dot. We have found that the story has deep meaning for those interested in the study of the creative process and the creative person. The line in the story learns to bend and twist into all forms of complex and versatile shapes and structures, including complex ellipses, tetragrams, etc. He breaks the rigidity in his being — in his structure — into dazzling and profound displays of form that have

not only uniqueness but also relevance and meaning. This, of course, is the true nature of the creative process -- creating new relationships that are not only unique but relevant and meaningful. The line's rival in the little parable is an unruly, wide squiggle, who is undisciplined, unconventional, uninhibited, etc. In the story, the squiggle loses out in his competition with the line after the line has learned to merge his innate freedom and spontaneity with his learned self-discipline and responsibility so as to produce channeled freedom. The squiggle does not know how to direct and channel his freedom, and goes on being only a wild and unkempt bit of anarchy (Parnes and Noller, 1973).

As the line learned to free his channels, so could the squiggle have learned to channel his freedom. This then becomes the delicate balance in creative behavior -- freeing channels/channeling freedom, a much needed balance which does not remain static, but which oscillates constantly so as to allow for the myriad of different challenges we face daily" (Parnes and Biondi, 1975: 49).

Indeed, there is a great need for balance in this world. So, bridging the gap between two cultures, sharing each other's strengths and pursuing a good balance may become the most meaningful long term contribution of this study. It is hoped that further work can be done along this combined new dimension.

## CHAPTER VI

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 1. SUMMARY

In the last twenty years, various impressions on the differences between kindergarten programs in China and North America were reported in the literature. To identify in a systematic way whether structural differences existed, was the main purpose of this study.

Eight classes for 5-year-old children from eight kindergartens in Beijing, China and eight classes for 5-year-olds from eight kindergartens in Ottawa, Canada were selected for the purpose of this study. A systematic observation was conducted for three separate school days in each class.

The observation focused on two major dimensions: 1. type of interaction among children, 2. extent of self-direction. Two independent categorization systems were developed and the relative time for each category was calculated and averaged for each school. Statistical comparisons between programs in China and Canada were carried out by utilizing A Mann-Whitney U non-parametric statistical test which is based on the ranks of the relative time. Non-statistical comparisons were also made based on the raw data and author's several months experience in conducting this study.

## 2. CONCLUSIONS

A. Comparing the full school days in the Chinese sample with the school days (morning/afternoon) in the Canadian sample, it was found that more relative time was scheduled for individual and self-directed activity in China and more relative time was scheduled for class activity in Canada ( $p = .10$ ). No significant difference was found in any other categories. Comparing the morning part of the school days in the Chinese sample with the school days (morning/afternoon) in the Canadian sample, no significant difference was found in any category.

B. Elements in the kindergarten programs which fall outside the structural make-up such as children's literature, songs and teacher's expectation and reinforcement appeared to be different in China and Canada. It was found that there were more pictures, songs, stories, rhymes and shows with cooperative content existing in the Chinese kindergartens observed. When activities were teacher directed the teacher direction was more rigid in the Chinese kindergartens observed. Much more relative time was devoted to physical exercise and games in the Chinese programs.

### 3. RECOMMENDATIONS FOR FURTHER STUDY

A. The general categories used for the dimension of self-direction in this study could gain from further development to make finer separations possible. It was felt that if a more refined degree of separation had been possible some significant differences may have been uncovered between countries within this general area. The categories used in this study could be further refined to increase the precision of the data obtained and its representativeness of reality.

B. It would also be useful to go beyond the basic structural components of programs to look more closely at specific activities in each culture and how each is approached and acted out.

C. In an attempt to further explain children's behavioral differences in China and Canada, it is recommended that further cross cultural studies be conducted to explore: 1. existing differences in the content of children's literature, movies, songs and play, 2. the teacher's expectations and reinforcement, 3. the parent's expectations and reinforcement, and 4. the children's perception of how they should play and interact with others.

## 4. END NOTE

The purpose of this study was to assess and categorize the major structure of learning to which Chinese and Canadian children were exposed. A global classification system was developed and applied. The next logical progression is to look more closely at what happens within these major learning structures. How do children function, interpret and interact within each of the separate structures? What are the specific elements within structures which differ between schools and cultures? For example, children may be exposed to an individual learning structure wherein each child can choose a book to read; however, the social content of those books may be dramatically different.

In that the specific purpose of this study was to focus on the global assessment of learning structures, the results have been limited to that focus. It should, however, be noted that while engaged in this research, the researcher became aware of differences which appeared to exist within various structures. Some comments related to this have been presented in Appendix A.

Although these perceived differences fell outside the stated research focus of this study they were deemed important and should become the focus of future research. It would also be interesting to submit the data in this and future studies to further analyses in order to examine within country variability more thoroughly.

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**APPENDICES**

**A - G**

## APPENDIX A

DATA SHEETS FOR THREE SCHOOL DAY'S OBSERVATION IN  
EIGHT CHINESE KINDERGARTENS AND EIGHT CANADIAN KINDERGARTENS

In order to assist the reader in better understanding the feelings of the researcher with respect to the results of this study, it was decided to include this Appendix which contains results and speculations which fall outside the specifically defined research purpose of this study.

Semi-Cooperative Activity and Competitive Activity

Semi-cooperative activity was observed in two classes in the Chinese sample and not observed at all in the Canadian sample (see Table 25). Competitive activity was observed in six classes in the Chinese sample and in one class in the Canadian sample (see Table 26).

The Mann-Whitney U Test was not conducted for the categories of semi-cooperative and competitive activity due to the low frequency of these activities and the high number of tied ranks. The power of the Mann-Whitney U Test is decreased when the number of tied scores is large, since the analysis is based on ranks. The raw data is presented in Tables 25 and 26.

TABLE 25

RELATIVE TIME FOR SEMI-COOPERATIVE ACTIVITY  
IN CHINESE AND CANADIAN PROGRAMS

<u>Chinese Sample</u>	<u>Canadian Sample</u>
0	0
0	0
0.0214	0
0	0
0	0
0	0
0	0
0.0654	0

TABLE 26

RELATIVE TIME FOR COMPETITIVE ACTIVITY  
IN CHINESE AND CANADIAN PROGRAMS

<u>Chinese Sample</u>	<u>Canadian Sample</u>
.0181	0
0	.0170
.0857	0
0	0
.0217	0
.0094	0
.0362	0
.0611	0

Difference Related to Cooperation in Pictures, Songs, Stories, Rhymes and Shows

All the pictures, songs, stories, rhymes and shows with cooperative content observed in this study were recorded for both countries under the raw data (see Appendix D).

Within the domain of cooperation, they were further divided into three sub-categories as 1. getting along, 2. sharing, and 3. helping. There were a total of 14 items recorded in the Chinese sample as having a cooperative element. Seven of them fell into the sub-category of "getting along", two items in "sharing" and five items in "helping". There were a total of 6 items recorded in the Canadian sample as having a cooperative element. Four of them fell into the sub-category of "getting along," two items in "sharing" and none in "helping" (see Table 27).

TABLE 27

COMPARISON OF THE COOPERATIVE ELEMENT IN PICTURES, SONGS, STORIES, RHYMES, AND SHOWS OBSERVED IN CHINA AND CANADA

	China	Canada
1. getting along	7	4
2. sharing	2	2
3. helping	5	0
Total	14	6

### Differences in Directing Style in Teacher Directed Activity

A further breakdown of teacher-directed activity (see Table 28) was conducted based on the raw data to better understand those results. All the teacher-directed activity observed in eight schools (three days for each) in both countries was divided into eight sub-categories: 1. passive listening (e.g., children listening to teacher's instructions or comments). 2. active involvement in learning (e.g., children engaged in some activity organized by the teacher where every child can practice what has been taught such as children using playdough to make numbers just learned). 3. under rigid requirement for outcome (e.g., children repeating story told by teacher word for word; children drawing a picture by following teacher's model exactly; children answering teacher's question with only one possible correct answer). 4. active participation with some self-direction (e.g., children answering teacher's open-ended question during teacher's demonstration; children pasting a pre-drawn figure then making the face). 5. Story, music, movie, TV or book reading. 6. singing, dancing or rhyme-reciting. 7. physical exercises. 8. game.

Differences worth noting were as follows: In the Canadian sample 34% of the<sup>6</sup> total time was devoted to activity with children's active participation while this occurred for only 8% of the total time in the Chinese sample. In the Chinese sample, 26% of the total time was devoted to activity under teacher's rigid requirement for outcome, whereas only 11% of the total time in the Canadian sample fell under

this category. In addition, there was much more time devoted to physical exercise and games in the Chinese sample than in the Canadian sample. Twenty six per cent of the total time in the Chinese sample was allotted for the combined categories of exercise and games as opposed to 4% of the total time in the Canadian sample (see Table 28).

TABLE 28

COMPARISON OF TOTAL TIME FOR EACH SUB-CATEGORY AND ITS PROPORTION  
WITHIN TEACHER-DIRECTED ACTIVITY BETWEEN  
THE CHINESE SAMPLE AND THE CANADIAN SAMPLE

	CHINA		CANADA	
	Total Time	%	Total Time	%
Total time for teacher-directed activity (8 schools x 3 days)	2576'		1819'	
passive listening	156'	6	122'	7
active involvement (in learning)	195'	8	617'	34
under rigid requirement for outcome	661'	26	195'	11
active participation with some self-direction	244'	9	190'	10
story, music, TV, book reading	360'	14	363'	20
singing, dancing, rhyme-reciting	278'	11	262'	14
physical exercises	290'	11	42'	2
game	392'	15	28'*	2

\* not including games in language class

## APPENDIX B

DATA SHEETS FOR THREE SCHOOL DAY'S OBSERVATION IN  
EIGHT CHINESE KINDERGARTENS AND EIGHT CANADIAN KINDERGARTENS

China School #1, Day 1, Jan. 17

FROM	TO	MINUTE	CATEGORY	ACTIVITY
8:47	8:54	7'	TD CL	calendar
8:54	9:00	6'	TD CL	jogging led by teacher
9:08	9:27	19'	TD CL	tell a story according to a picture, have to follow teacher's pattern
9:27	9:33	6'	TD CL	teacher makes comments on the class
9:45	9:55	10'	PSD CL	play with handkerchief
9:55	10:30	35'	TD CL	modeling a tree
10:30	11:00	30'	TD CL	outdoor skipping
-----				
PM				
3:25	3:45	20'	TD COOP	sing and dance together
3:45	4:15	30'	SD IN	outdoor free play
4:15	4:45	30'	SD IN	indoor free play

China School #1, Day 2, Jan. 18

FROM	TO	MINUTE	CATEGORY	ACTIVITY
8:55	9:00	5'	TD CL	calendar led by teacher
9:00	9:06	6'	TD CL	exercises led by teacher
9:10	9:35	25'	TD CL	repeat a story told by teacher
9:50	10:20	30'	TD CL	learn Chinese characters
10:20	10:25	5'	TD CL	teacher introduces rulls
10:25	10:55	30'	SD IN	indoor free play
-----				
PM				
3:30	3:55	25'	TD CL	cut a comb pre-set
3:55	4:40	45'	SD IN	outdoor free play

- TD - Teach (or other) directed activity  
 PSD - partially self-directed activity  
 SD - self-directed activity  
 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

China School #1, Day 3, Mar. 6

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:45	8:50	5'	TD	CL	calendar led by teacher
8:50	9:00	10'	TD	CL	exercises led by teacher
9:00	9:25	25'	TD	CL	learn Chinese characters
9:32	9:42	10'	TD	CP	outdoor chasing game
9:42	10:05	23'	TD	CL	tell story according to teacher presented pictures with pattern
10:05	10:50	45'	SD	IN	outdoor free play

PM

3:30	3:55	25'	TD	CL	teacher tells stories
3:55	4:40	45'	SD	IN	outdoor free play

China School #2, Day 1, Mar. 7

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:40	7:50	10'	SD	IN	outdoor free play
7:50	7:57	7'	TD	CL	exercises led by teacher
8:15	8:30	15'	SD	IN	indoor table free play
8:30	8:50	20'	SD	IN	outdoor free play
8:50	9:15	25'	TD	CL	teacher demonstrates sugar, salt and water
9:15	9:20	5'	SD	IN	outdoor free play
9:20	9:25	5'	TD	COOP	outdoor hand in hand game
9:25	9:35	10'	SD	IN	outdoor free play
9:40	10:05	25'	TD	CL	English class
10:05	10:20	15'	SD	IN	outdoor free play
10:20	10:50	30'	SD	IN	indoor free play

PM

3:30	4:45	75'	SD	IN	outdoor free play
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- TD - Teach (or other) directed activity  
 PSD - partially self-directed activity  
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 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

China School #2, Day 2, Mar. 8

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:40	7:50	10'	SD	IN	outdoor free play
7:50	7:57	7'	TD	CL	exercises
8:15	8:30	15'	SD	IN	indoor table play
8:30	8:53	23'	SD	IN	outdoor free play
8:53	9:00	7'	PSD	CL	talk about child's mother
9:00	9:10	10'	TD	CL	reciting rhymes for mothers
9:15	9:18	3'	TD	CL	exercises
9:18	9:40	22'	SD	IN	indoor table play
9:40	10:10	30'	TD	CL	math class
10:10	10:23	13'	SD	IN	outdoor free play
10:23	10:45	22'	TD	IN	talk to mothers under teacher's instruction
10:45	11:00	15'	SD	IN	indoor free play

PM

3:30	4:40	70'	SD	IN	outdoor free play
4:40	4:50	10'	TD	COOP	dance together

China School #2, Day 3, Mar. 9

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:40	7:50	10'	SD	IN	outdoor free play
7:50	7:57	7'	TD	CL	exercises
8:15	8:30	15'	SD	IN	indoor table play
8:30	8:45	15'	SD	IN	outdoor free play
8:45	9:10	25'	TD	CL	teacher introduces role play "shopping"
9:15	9:25	10'	TD	CL	outdoor exercises led by teacher
9:35	10:05	30'	TD	COOP	role play shopping guided by teacher - clerk introduce goods to customer, etc.
10:05	10:10	5'	PSD	COOP	free role play shopping
10:10	10:30	20'	SD	IN	outdoor free play
10:30	10:55	25'	TD	CL	teacher comments on the role play

PM

3:30	4:45	75'	PSD	IN	theme activity by children's choice
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- TD - Teach (or other) directed activity  
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 SD - self-directed activity  
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 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

China School #3, Day 1, Mar. 11

FROM	TO	MINUTE	CATEGORY	ACTIVITY
7:40	7:45	5'	TD CL	exercises led by teacher
8:30	9:00	30'	SD IN	outdoor free play
9:00	9:25	25'	TD CL	language teaching with games
9:25	9:35	10'	SD IN	outdoor free play
9:35	9:40	5'	TD CL	paper folding a cup (model)
9:40	9:50	10'	PSD CL	free paper folding
9:50	10:00	10'	TD CL	find animals hidden by teacher
10:00	10:05	5'	PSD CP	find animals hidden by teacher
10:05	10:10	5'	TD CP	outdoor chasing game
10:10	10:20	10'	PSD CP	find animals hidden by teacher
10:20	10:45	25'	TD CL	teacher tells story
10:45	10:55	10'	SD IN	outdoor free play
10:55	11:05	10'	TD CL	reciting rhyme
11:05	11:15	10'	SD IN	outdoor free play

## PM

3:20	3:35	15'	TD COOP	outdoor game "sending turnips to my friends"
3:35	3:50	15'	TD SCP	relay race
3:50	4:20	30'	SD IN	outdoor free play
4:20	4:30	10'	TD CL	listen to music

China School #3, Day 2, Mar. 12

FROM	TO	MINUTE	CATEGORY	ACTIVITY
7:40	7:45	5'	TD CL	exercises led by teacher
8:30	8:55	25'	SD IN	outdoor free play
8:55	9:25	30'	TD CL	learn to use certain words
9:25	9:35	10'	SD IN	outdoor free play
9:35	10:00	25'	TD CL	draw a flower model
10:05	10:20	15'	TD CP	outdoor chasing game
10:20	10:35	15'	TD CL	teacher tells a story
10:35	10:45	10'	TD CL	indoor finding object hidden by the teacher
10:45	11:10	25'	TD COOP	outdoor hand in hand game

TD - Teach (or other) directed activity

PSD - partially self-directed activity

SD - self-directed activity

CL - class activity

IN - individual activity

COOP - cooperative activity

SCP - semi-cooperative activity

CP - competitive activity

China School #3, Day 2, Mar. 12

FROM	TO	MINUTE	CATEGORY		ACTIVITY
PM					
3:15	3:35	20'	TD	CP	musical chairs
3:35	3:45	10'	TD	COOP	musical game "making a call to my friend"
3:45	4:05	20'	TD	CP	indoor game "planting the seed"
4:05	4:20	15'	SD	IN	outdoor free play
4:20	4:30	10'	SD	IN	indoor free play
4:35	4:40	5'	TD	CL	listen to music

China School #3, Day 3, Mar. 13

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:40	7:45	5'	TD	CL	exercises led by teacher
8:30	9:00	30'	SD	IN	outdoor free play
9:00	9:25	25'	TD	CL	learning numbers
9:25	9:35	10'	SD	IN	outdoor free play
9:35	9:50	15'	TD	COOP	sing together
9:50	10:00	10'	TD	COOP	musical game "making a call to my friend"
10:00	10:15	15'	TD	CL	watch teacher dancing
10:25	10:40	15'	SD	IN	outdoor free play
10:40	10:55	15'	TD	CL	teacher tells story
10:55	11:00	5'	SD	IN	outdoor free play
-----					
PM					
3:20	3:40	20'	TD	CL	paper folding (model)
3:40	4:00	20'	PSD	CL	free paper folding
4:00	4:30	20'	SD	IN	outdoor free play
4:30	4:35	5'	TD	CL	teacher tells story

- TD - Teach (or other) directed activity  
 PSD - partially self-directed activity  
 SD - self-directed activity  
 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

China School #4, Day 1, Mar. 18

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:25	7:35	10'	TD	CL	exercises
8:25	8:40	15'	SD	IN	indoor free play
8:45	9:05	20'	TD	CL	learn the names of vehicles
9:05	9:20	15'	SD	IN	indoor free play
9:20	10:00	40'	TD	CL	draw a picture "spring" with model
10:00	10:05	5'	SD	IN	indoor free play
10:05	10:45	40'	SD	IN	outdoor free play
-----					
PM					
3:30	3:50	20'	SD	IN	indoor free play
4:00	5:10	70'	SD	IN	outdoor free play

China School #4, Day 2, Mar. 19

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:25	7:35	10'	TD	CL	exercises led by teacher
8:25	8:40	15'	SD	IN	indoor free play
8:50	9:07	17'	TD	CL	language class led by teacher
9:25	9:45	20'	PSD	CL	playdough free making
9:55	10:15	20'	SD	IN	outdoor free play
10:15	10:30	15'	TD	CL	teacher criticizes the children
10:30	10:45	15'	SD	CL	one child tells a story
-----					
PM					
3:30	4:00	30'	TD	CL	teacher teaches a game
4:10	4:50	40'	TD	COOP	play train (holding hands) game
4:50	5:10	20'	SD	IN	outdoor free play

TD - Teach (or other) directed activity  
 PSD - partially self-directed activity  
 SD - self-directed activity  
 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

China School #4, Day 3, Mar. 20

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:25	7:35	10'	TD	CL	exercises
8:25	8:40	15'	SD	IN	indoor free play
9:00	9:20	20'	PSD	CL	free painting class
9:35	10:10	35'	TD	CL	physical exercises
10:10	10:35	25'	TD	COOP	sing and dance together
10:35	10:45	10'	TD	CL	teacher makes comments

PM

3:30	4:20	50'	SD	IN	indoor free play
4:30	4:50	20'	PSD	CL	looking for the spring
4:50	5:20	30'	SD	IN	outdoor free play

China School #5, Day 1, Jan. 16

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:45	7:55	10'	TD	CL	exercises led by teacher
8:07	8:35	28'	SD	IN	indoor free play
8:45	9:10	25'	TD	CL	language teaching with a short show
9:10	9:15	5'	TD	CP	outdoor chasing game
9:15	9:45	30'	TD	CL	learn a dance
9:45	10:00	15'	SD	IN	outdoor free play
10:00	10:02	2'	TD	CL	exercises
10:02	10:45	43'	SD	IN	indoor free play
10:55	11:00	5'	SD	IN	outdoor free play

PM

3:00	3:40	40'	SD	IN	outdoor free play
3:40	3:45	5'	TD	CL	teacher's instruction
3:45	4:30	45'	SD	IN	indoor free play
4:30	4:40	10'	SD	IN	outdoor free play

TD - Teach (or other) directed activity

PSD - partially self-directed activity

SD - self-directed activity

CL - class activity

IN - individual activity

COOP - cooperative activity

SCP - semi-cooperative activity

CP - competitive activity

China School #5, Day 2, Mar. 17

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:45	7:55	10'	TD	CL	exercises
8:15	8:45	30'	SD	IN	indoor free play
8:45	9:00	15'	SD	IN	outdoor free play
9:00	9:20	20'	TD	CL	paper folding a model
9:20	9:45	25'	SD	IN	outdoor free play
9:45	10:15	30'	TD	CL	find something hidden by teacher
10:15	10:45	30'	SD	IN	indoor free play
10:50	11:03	13'	TD	CP	outdoor chasing game
11:03	11:08	5'	TD	COOP	holding hands and rotating with two people

PM

3:05	3:27	22'	SD	IN	outdoor free play
3:27	4:30	63'	SD	IN	indoor free play
4:30	4:45	15'	SD	IN	outdoor free play

China School #5, Day 3, Mar. 22

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:45	7:55	10'	TD	CL	exercises
8:15	8:45	30'	SD	IN	indoor free play
8:45	8:55	10'	SD	IN	outdoor free play
8:55	8:58	3'	TD	COOP	singing and clapping game
8:58	9:11	13'	TD	CL	telling story according to a picture
9:11	9:15	4'	TD	COOP	telling self-made story in group of two
9:15	9:23	8'	TD	CL	teacher tells the story
9:23	9:45	22'	SD	IN	outdoor free play
9:45	10:15	30'	TD	COOP	sing and dance together
10:15	10:55	40'	SD	IN	outdoor free play
10:55	11:00	15'	TD	COOP	sing together

PM

3:00	3:13	13'	SD	IN	outdoor free play
3:13	3:20	7'	TD	COOP	singing and clapping game
3:20	4:15	55'	SD	IN	indoor free play
4:15	4:45	30'	SD	IN	outdoor free play

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 PSD - partially self-directed activity  
 SD - self-directed activity  
 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

China School #6, Day 1, Apr. 18

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:00	8:35	35'	TD	CL	half of the class reads books given by teacher; half practices dance routine individually
8:35	8:55	20'	PSD	CL	play with construction toys
9:00	9:05	5'	TD	CL	exercises led by teacher
9:05	9:40	35'	TD	CL	math class led by teacher
9:40	9:53	13'	SD	IN	recess
9:53	10:15	22'	PSD	CL	free drawing class
10:15	10:30	15'	OD	CL	watch TV
10:30	10:45	15'	SD	IN	indoor free play

PM

3:00	3:50	50'	OD	CL	watch TV
3:55	4:40	45'	OD	CL	watch puppet

China School #6, Day 2, Apr. 19

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:00	8:40	40'	SD	IN	indoor table play
8:40	9:07	27'	TD	CL	exercises led by teacher
9:07	9:25	18'	SD	IN	indoor table play
9:25	9:30	5'	SD	IN	recess
9:30	10:03	33'	TD	CL	paper cutting with model
10:03	10:20	17'	SD	IN	recess
10:20	10:42	22'	SD	IN	outdoor free play
10:50	11:00	10'	TD	COOP	singing and clapping game

PM

3:00	3:10	10'	TD	CL	read books given by teacher
3:10	3:30	20'	TD	COOP	dance together
3:30	4:33	63'	TD	CL	walk as a group
4:33	4:40	7'	TD	CP	outdoor chasing game
4:40	4:50	10'	SD	IN	outdoor free play

TD - Teach (or other) directed activity

PSD - partially self-directed activity

SD - self-directed activity

CL - class activity

IN - individual activity

COOP - cooperative activity

SCP - semi-cooperative activity

CP - competitive activity

China School #6, Day 3, Apr. 20

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:00	8:15	15'	TD	CL	practice standing in line
8:15	8:25	10'	SD	IN	indoor free play
8:35	8:55	20'	TD	CL	exercises
8:55	9:00	5'	OD	CL	two children demonstrate dance
9:08	9:42	34'	TD	CL	puzzles for intellectual development
9:42	9:55	13	PSD	CL	comments the whole week (teacher and children)
9:55	10:05	10'	SD	IN	outdoor free play
10:05	10:30	25'	OD	CL	watch TV
10:30	10:45	15'	SD	IN	outdoor free play
-----					
PM					
3:00	3:27	27'	TD	CL	exercises
3:33	3:37	4'	TD	COOP	sing together
3:40	4:15	35'	PSD	CL	free painting class

China School #7, Day 1, Apr. 22

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:05	8:35	30'	SD	IN	indoor free play
8:40	9:00	20'	TD	CL	learn the characteristics of the giraffe
9:10	9:50	40'	TD	CL	learn names of different shapes
9:55	10:00	5'	TD	COOP	outdoor hand in hand game
10:00	10:45	45'	SD	IN	outdoor free play
-----					
PM					
3:25	3:40	15'	TD	CL	paper folding a model
3:45	3:50	5'	TD	CP	outdoor chasing game
3:50	4:15	25'	SD	IN	outdoor free play

TD - Teach (or other) directed activity

PSD - partially self-directed activity

SD - self-directed activity

CL - class activity

IN - individual activity

COOP - cooperative activity

SCP - semi-cooperative activity

CP - competitive activity

China School #7, Day 2, Apr. 24

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:05	8:35	20'	SD	IN	indoor free play
8:40	9:00	20'	TD	CL	learn a rhyme
9:15	9:38	23'	TD	COOP	sing together
9:40	10:00	20'	SD	IN	indoor free play
10:05	10:15	10'	TD	CP	outdoor chasing game
10:15	10:45	30'	SD	IN	outdoor free play
-----					
PM					
3:15	3:35	20'	SD	IN	indoor free play
3:45	3:50	5'	TD	CP	outdoor chasing game
3:50	4:15	25'	SD	IN	outdoor free play

China School #7, Day 3, Apr. 25

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:05	8:35	30'	SD	IN	indoor free play
8:45	9:10	25'	TD	CL	math class led by teacher
9:25	9:30	5'	TD	CL	teacher introduces May 1st
9:30	9:35	5'	PSD	CL	children tell what to do in holiday
9:35	9:50	15'	TD	CL	teacher talks about May 1st
9:50	10:00	10'	SD	IN	indoor free play
10:00	10:45	45'	SD	IN	outdoor free play
-----					
PM					
3:15	4:15	60'	SD	IN	indoor free play

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 SD - self-directed activity  
 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

China School #8, Day 1, Apr. 23

FROM	TO	MINUTE	CATEGORY	ACTIVITY
7:40	7:50	10'	TD	COOP dance together
7:50	8:10	20'	SD	IN outdoor free play
8:10	8:40	30'	TD	COOP dance together
8:40	8:45	5'	TD	CL recess led by teacher
9:00	9:20	20'	OD	CL watch TV
9:20	9:30	10'	TD	SCP outdoor game "pick up the bean"
9:30	9:37	7'	TD	CP outdoor game "make a group"
9:37	9:45	8'	TD	CL volleyball
9:45	10:40	55'	SD	IN outdoor

PM

2:40	3:05	25'	TD	CL learn the use of different paper
3:10	3:25	15'	TD	COOP dance together
3:30	3:40	10'	TD	SCP compete smashing volleyball between boys and girls
3:40	3:50	10'	TD	SCP relay race
3:50	4:15	25'	SD	IN indoor free play

China School #8, Day 2, Apr. 26

FROM	TO	MINUTE	CATEGORY	ACTIVITY
7:40	7:50	10'	TD	CP outdoor chasing game
7:50	7:55	5'	SD	IN outdoor free play
8:00	8:28	28'	TD	COOP singing and dancing together
8:28	8:40	12'	TD	CL recess led by teacher
9:00	9:15	15'	OD	CL watch TV
9:27	9:40	13'	TD	COOP dance together
9:40	9:50	10'	TD	CP outdoor chasing game
9:50	10:30	40'	SD	IN outdoor free play

PM

2:45	3:10	25'	TD	CL language class led by teacher
3:10	3:50	40'	SD	IN indoor free play
3:50	4:30	40'	SD	IN indoor free play

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 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

China School #8, Day 3, Apr. 27

FROM	TO	MINUTE	CATEGORY		ACTIVITY
7:45	8:05	20'	TD	CL	read books given by teacher
8:10	8:15	5'	TD	CL	exercises led by teacher
8:15	8:30	15'	TD	SCP	relay race
8:30	8:45	15'	TD	CP	outdoor chasing game
8:50	8:55	5'	OD	CL	a few children demonstrate dance
8:55	10:00	65'	OD	CL	watch TV
10:00	10:30	30'	SD	IN	outdoor free play

PM

3:05	3:25	20'	TD	CL	math class led by teacher
3:25	3:50	25'	SD	IN	outdoor free play

- TD - Teach (or other) directed activity  
 PSD - partially self-directed activity  
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 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

Canada School #1, Day 1, Oct. 23, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
9:00	9:07	7'	TD COOP	singing in circle
9:07	9:10	3'	TD CL	calendar
9:10	9:14	4'	TD CL	reciting a rhyme
9:14	9:23	9'	PSD CL	children talk about what they saw in the woods asked by teacher
9:23	9:28	5'	TD CL	teacher demonstrates cutting a pumpkin and shows some photos
10:32	10:58	26'	TD CL	English class led by teacher
11:05	11:35	30'	TD CL	teacher tells a story

Canada School #1, Day 2, Oct. 29, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
9:00	9:07	7'	TD COOP	singing in circle
9:07	9:10	3'	PSD CL	kids talk about things happening at home
9:15	9:22	7'	TD COOP	singing together
9:22	9:31	9'	TD CL	teacher tells story
9:31	9:45	14'	TD CL	cut a lantern model
9:45	10:14	29'	SD IN	indoor free play
10:17	10:28	11'	OD COOP	grade 1 kids come to tell their self-made story one on one
10:35	10:59	24'	TD CL	French class led by teacher
11:04	11:27	23'	OD CL	watch movie
11:27	11:40	13'	SD IN	outdoor free play

- TD - Teach (or other) directed activity  
 PSD - partially self-directed activity  
 SD - self-directed activity  
 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

Canada School #1, Day 3, Oct. 30, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
9:04	9:10	6'	TD COOP	singing in circle
9:10	9:23	13'	TD CL	teacher makes a lantern
9:23	9:27	4'	TD COOP	singing together
9:27	9:41	14'	TD CL	teacher tells stories
9:41	10:19	38'	SD IN	indoor free play
10:27	10:30	3'	TD COOP	singing and skipping game "I've lost my partner"
10:36	11:00	24'	TD CL	French class led by teacher
11:10	11:26	16'	TD, COOP	making jello together led by teacher
11:26	11:40	14'	SD IN	outdoor free play

Canada School #2, Day 1, Nov. 6, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
9:02	9:09	7'	TD COOP	singing in circle.
9:09	9:12	3'	TD CL	count numbers
9:12	9:25	13'	PSD COOP	show and tell and let everyone hug the doll, etc.
9:25	9:27	2'	TD CL	go through body parts led by teacher
9:27	9:35	8'	PSD CL	ask kids what they like about themselves & what they do well
9:35	10:00	25'	TD CL	paste a figure and draw a face on it
10:00	10:25	25'	SD IN	indoor free play
10:30	10:56	26'	TD CL	French class led by teacher
11:08	11:29	21'	TD COOP	singing and playing instrument together
11:29	11:38	9'	TD CL	story

TD - Teach (or other) directed activity

PSD - partially self-directed activity

SD - self-directed activity

CL - class activity

IN - individual activity

COOP - cooperative activity

SCP - semi-cooperative activity

CP - competitive activity

Canada School #2, Day 2, Nov. 7, AM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
9:02	9:17	15'	TD	CL	count numbers, tell birthday, telephone number
9:17	9:27	10'	PSD	COOP	show and tell, showing the object to everyone
9:27	9:33	6'	TD	CL	learn body parts led by teacher
9:33	10:23	50'	SD	IN	indoor free play
10:32	10:55	23'	TD	CL	French class led by teacher
11:05	11:09	4'	TD	COOP	singing together
11:09	11:16	7'	TD	CP	musical game, eliminate those who don't sit down when music stops
11:16	11:21	5'	TD	CL	tell story and rhyme
11:21	11:37	16'	TD	CL	color pre-drawn figure

Canada School #2, Day 3, Nov. 8 AM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
9:02	9:23	21'	TD	COOP	sing in circle, some movement
9:23	9:39	16'	PSD	CL	show and tell
9:40	10:30	50'	SD	IN	indoor free play
10:32	10:50	18'	TD	CL	French class led by teacher
11:00	11:12	12'	TD	CL	teach "in" and "out" concept
11:12	11:25	13'	TD	CL	draw care bear by tracing lines
11:27	11:33	6'	TD	CL	throw a tag into a pail at a certain distance

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 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

Canada School #3, Day 1, Nov. 6, PM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
1:02	1:08	6'	TD	CL	calendar led by teacher
1:08	1:14	6'	PSD	CL	show and tell
1:14	1:16	2'	TD	COOP	singing and moving together
1:16	1:29	13'	TD	CL	teacher tells story and shows pictures
1:30	1:44	14'	SD	IN	indoor free play
1:46	2:17	31'	TD	CL	French led by teacher
2:20	2:31	11'	SD	IN	indoor free play
2:55	3:09	14'	TD	COOP	singing and moving together
3:09	3:18	9'	OD	CL	watch movie

Canada School #3, Day 2, Nov. 7, PM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
1:06	1:11	5'	TD	COOP	singing in circle
1:11	1:17	6'	TD	CL	calendar, count numbers
1:17	1:23	6'	PSD	CL	show and tell
1:23	1:27	4'	TD	CL	story
1:27	1:30	3'	PSD	CL	ask kids what they saw on farm and draw it
1:30	1:45	15'	SD	IN	indoor free play
1:47	2:15	28'	TD	CL	French led by teacher
2:20	2:30	10'	SD	IN	indoor free play
2:55	3:07	12'	TD	COOP	singing together
3:07	3:23	6'	OD	CL	watch movie

TD - Teach (or other) directed activity  
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 SD - self-directed activity  
 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

Canada School #3, Day 3, Nov. 8, PM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
1:02	1:08	6'	TD CL	calendar
1:08	1:11	3'	PSD CL	show and tell
1:11	1:14	3'	TD CL	exercise led by teacher
1:14	1:20	6'	PSD CL	ask kids what they saw on the farm and draw it
1:20	1:29	9'	TD CL	story
1:29	1:34	5'	TD COOP	singing and moving together
1:34	1:44	10'	SD IN	indoor free play
1:45	2:15	30'	TD CL	French class led by teacher
2:15	2:25	10'	SD IN	indoor free play
2:40	2:54	14'	SD IN	outdoor free play
3:03	3:23	20'	OD CL	watch movie

Canada School #4, Day 1, Nov. 12, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
9:05	9:10	5'	TD COOP	singing together
9:10	9:18	8'	PSD COOP	show and tell with showing things around
9:18	9:21	3'	TDD CL	physical exercises
9:21	9:26	5'	TD CL	story
9:28	10:00	32'	SD IN	indoor free play
10:05	10:32	27'	TD CL	French led by teacher
10:35	11:22	47'	SD IN	indoor free play
11:28	11:38	10'	OD CL	watch movie

Canada School #4, Day 2, Nov. 13, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
9:03	9:07	4'	TD COOP	singing together
9:07	9:15	8'	PSD COOP	show and tell with showing things around
9:15	9:25	10'	TD COOP	singing together
9:25	9:40	15'	TD CL	story
9:40	10:00	20'	SD IN	indoor free play
10:05	10:30	25'	TD CL	count and demonstrate numbers
10:35	11:40	65'	SD IN	indoor and outdoor free play

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 PSD - partially self-directed activity  
 SD - self-directed activity  
 CL - class activity  
 IN - individual activity  
 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

Canada School #4, Day 3, Nov. 16, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
9:03	9:08	5'	TD COOP	singing in circle
9:08	9:15	7'	PSD CL	show and tell
9:15	9:25	10'	TD CL	listen to music
9:25	9:30	5'	TD CL	story
9:30	9:35	5'	TD CL	some instruction from teacher
9:35	10:00	25'	SD IN	indoor free play
10:05	10:37 <sup>y</sup>	32'	TD CL	French led by teacher
10:35	11:41	66'	SD IN	outdoor and indoor play

Canada School #5, Day 1, Nov. 13, PM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
12:45	1:00	15'	SD IN	outdoor free play
1:07	1:23	16'	TD CL	calendar, count numbers
1:23	1:57	34'	SD IN	indoor free play
2:00	2:06	6'	TD CL	go through body parts led by teacher
2:06	2:12	6'	TD COOP	moving to music together
2:15	2:19	4'	TD COOP	singing together
2:19	2:22	3'	TD CL	reciting rhyme
2:25	2:52	27'	TD CL	French class led by teacher
2:58	3:07	9'	OD CL	watch movie
3:07	3:15	8'	TD CL	use tape recorder to record kids' voices

Canada School #5, Day 2, Nov. 14, PM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
12:55	1:15	20'	SD IN	outdoor free play
1:21	1:35	14'	TD CL	calendar, introduce sense of smell
1:35	2:02	27'	SD IN	indoor free play
2:07	2:12	5'	TD CL	listen to music
2:15	2:22	7'	TD COOP	singing together
2:25	2:55	30'	TD CL	French led by teacher
2:55	3:08	13'	TD CL	teach 5 senses with a fruit
3:08	3:14	6'	TD CL	story

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 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

Canada School #5, Day 3, Nov. 15, PM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
12:50	1:05	15'	TD	CL	calendar, count numbers, introduce new activities
1:05	1:48	43'	SD	IN	indoor free play
1:58	2:05	7'	OD	CL	1 kid demonstrates break dance
2:05	2:10	5'	TD	COOP	moving to music together
2:12	2:22	10'	TD	COOP	singing together
2:25	2:55	30'	TD	CL	French led by teacher
2:58	3:07	9'	TD	CL	reciting rhyme
3:07	3:13	6'	TD	COOP	passing ball in the circle
3:13	3:20	7'	TD	CL	teacher talks about five senses

Canada School #6, Day 1, Nov. 20, AM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:59	9:20	21'	TD	CL	prayer, calendar, exercises
9:20	9:30	10'	TD	CL	story
9:30	9:40	10'	TD	CL	introduce new activity
9:40	10:23	43'	SD	IN	indoor free play
10:23	10:32	9'	TD	COOP	dancing together
10:32	10:42	10'	PSD	COOP	sharing toys (show and tell)
10:42	11:16	34'	TD	CL	French led by teacher
11:16	11:20	4'	TD	COOP	singing together
11:25	11:35	10'	SD	IN	outdoor free play

Canada School #6, Day 2, Nov. 21, AM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:59	9:15	16'	TD	CL	prayer, calendar, exercises
9:15	9:24	9'	TD	CL	story
9:24	9:30	6'	TD	CL	introduce new activity
9:30	10:15	45'	SD	IN	indoor free play
10:24	10:33	9'	TD	CL	teacher gives instruction
10:33	10:41	8'	PSD	COOP	sharing toys (show and tell)
10:45	11:13	28'	TD	CL	French led by teacher
11:16	11:26	10'	OD	CL	watch movie
11:29	11:35	6'	TD	COOP	singing together

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 COOP - cooperative activity  
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 CP - competitive activity

Canada School #6, Day 3, Nov. 22, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
8:59	9:32	33'	TD CL	calendar, counting, exercises and instruction
9:32	10:28	56'	SD IN	indoor free play
10:28	10:32	4'	TD CL	listen to music
10:32	10:41	9'	PSD COOP	sharing toys (show and tell)
10:45	11:14	29'	TD CL	French led by teacher
11:15	11:20	5'	TD CL	story
11:20	11:30	10'	TD COOP	singing together

Canada School #7, Day 1, Nov. 27, PM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
12:55	1:03	8'	TD COOP	singing together
1:03	1:26	23'	TD CL	show number book, instruction
1:26	2:14	48'	SD IN	indoor free play
2:18	2:20	2'	TD CL	show a painting picture done by kids
2:25	2:54	29'	TD CL	French
3:05	3:13	8'	TD CL	listen to music
3:13	3:23	10'	TD CL	story

Canada School #7, Day 2, Nov. 28, PM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
12:50	1:18	28'	TD CL	calendar, counting, teacher's instruction
1:18	2:04	46'	SD IN	indoor free play
2:25	2:48	23'	TD CL	French
2:55	3:08	13'	TD CL	story
3:08	3:15	7'	TD CL	borrow books from the library, write down own name

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- SCP - semi-cooperative activity
- CP - competitive activity

Canada School #7, Day 3, Nov. 29, PM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
12:52	1:16	24'	TD	CL	calendar number book, instruction
1:16	2:00	44	SD	IN	indoor free play
2:05	2:10	5'	TD	COOP	singing together
2:10	2:35	25'	TD	CL	book bonanza
2:36	2:50	14'	TD	CL	French
3:00	3:09	9'	TD	CL	listen to music
3:09	3:16	7'	TD	CL	story

Canada School #8, Day 1, Nov. 28, AM

FROM	TO	MINUTE	CATEGORY		ACTIVITY
8:57	9:25	28'	SD	IN	outdoor free play
9:28	9:34	6'	TD	COOP	singing together
9:34	9:45	11'	TD	CL	introduce new activity
9:45	10:00	15'	SD	IN	indoor free play
10:05	10:34	29'	TD	CL	French
10:36	10:57	21'	SD	IN	indoor free play
11:02	11:07	5'	TD	CL	read books in circle individu- ally by one's own choice
11:07	11:17	10'	TD	CL	calendar, counting numbers
11:17	11:29	12'	PSD	CL	write a "thank you" note to someone; kids suggest what to say
11:29	11:35	6'	TD	CL	story

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 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

Canada School #8, Day 2, Nov. 29, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
8:55	9:03	8'	TD COOP	singing together
9:03	9:15	12'	TD CL	exercise
9:18	9:29	11'	PSD CL	talk about what they saw the other day
9:29	10:06	37'	SD IN	indoor free play
10:10	10:37	27'	TD CL	French
10:43	10:55	12'	TD CL	reciting rhymes
11:00	11:15	15'	OD CL	watch movie
11:15	11:18	3'	TD CL	exercises
11:18	11:23	5'	PSD CL	teacher asks what is favorite part in the movie
11:23	11:37	14'	PSD CL	show and tell

Canada School #8, Day 3, Nov. 30, AM

FROM	TO	MINUTE	CATEGORY	ACTIVITY
9:04	9:15	11'	TD CL	calendar, counting, rhyme
9:23	9:33	10'	TD CL	go to an art work show
9:35	9:47	12'	TD CL	story and instruction
9:47	10:02	15'	SD IN	indoor free play
10:05	10:35	30'	TD CL	French
10:37	11:00	23'	SD IN	indoor free play
11:23	11:35	12'	TD CL	story

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 COOP - cooperative activity  
 SCP - semi-cooperative activity  
 CP - competitive activity

## APPENDIX C

## TIMETABLES OF KINDERGARTENS IN THE CHINESE AND CANADIAN SAMPLES

China, School #1

A.M.	7:30 - 8:30	arrival
	8:30 - 8:45	morning exercises
	8:45 - 9:15	class #1
	9:15 - 9:30	drink
	9:30 - 10:00	class #2
	10:00 - 10:50	play
	11:15 - 12:00	lunch
	12:00 - 2:30	nap
P.M.	2:30 - 3:00	get up
	3:00 - 3:20	snack
	3:20 - 4:50	play
	5:00 - 5:30	supper
	5:30 - 6:00	dismissal

- China, School #2

A.M.	7:30 - 7:40	arrival
	7:40 - 7:50	outdoor play
	7:50 - 8:00	morning exercises
	8:00 - 8:15	breakfast
	8:15 - 8:30	quiet play
	8:30 - 8:45	outdoor play
	8:45 - 9:15	class #1
	9:15 - 9:40	drink and outdoor play
	9:40 - 10:05	class #2
	10:05 - 10:20	drink and outdoor play
	10:20 - 11:00	table play
	11:15 - 12:00	lunch
	12:00 - 2:30	nap
P.M.	2:30 - 3:00	get up
	3:00 - 3:30	snack
	3:30 - 4:45	play

China, School #3

A.M.	7:00 - 7:40	arrival
	7:40 - 7:45	morning exercises
	7:45 - 8:00	preparation for breakfast
	8:00 - 8:30	breakfast
	8:30 - 9:00	outdoor free play
	9:00 - 9:30	class #1
	9:30 - 9:45	recess
	9:45 - 10:15	class #2
	10:15 - 11:00	outdoor play
	11:00 - 11:45	lunch
	11:45 - 2:30	nap
P.M.	2:30 - 3:30	get up and snack
	3:30 - 4:50	play
	4:50 - 6:30	supper and dismissal

China, School #4

A.M.	7:25 - 7:35	morning exercises
	7:35 - 7:50	quiet play
	7:50 - 8:20	breakfast
	8:20 - 8:45	indoor free play
	8:45 - 9:15	class #1
	9:15 - 9:30	recess
	9:30 - 10:15	drink
	10:15 - 11:00	outdoor play
	11:00 - 11:15	preparation for lunch
	11:15 - 12:00	lunch
	12:00 - 2:30	nap
P.M.	2:30 - 2:45	get up
	2:45 - 2:50	exercises
	2:50 - 3:30	snack
	3:30 - 5:00	play
	5:15 -	supper

China, School #5

A.M.	7:30 - 7:45	arrival
	7:45 - 7:55	morning exercises
	7:55 - 8:15	breakfast
	8:15 - 8:45	table play
	8:45 - 9:00	outdoor play
	9:00 - 9:30	class #1
	9:30 - 9:45	recess
	9:45 - 10:15	class #2
	10:15 - 11:15	play
	11:15 - 12:00	lunch
	12:00 - 2:30	nap
P.M.	2:30 - 3:00	get up and snack
	3:00 - 5:00	play
	5:00 -	supper

China, School #6

A.M.	7:00 - 7:30	arrival
	7:30 - 8:00	breakfast
	8:00 - 8:45	quiet play
	8:45 - 9:00	morning exercises
	9:00 - 9:30	class #1
	9:30 - 9:40	drink
	9:40 - 10:10	class #2
	10:10 - 11:00	outdoor play
	11:15 - 11:45	lunch
	11:45 - 2:30	nap
P.M.	2:30 - 3:00	get up and snack
	3:00 - 4:00	indoor play
	4:00 - 5:00	outdoor play
	5:15 - 5:30	supper

China, School #7

A.M.	7:20 - 7:30	arrival
	7:30 - 8:00	breakfast
	8:00 - 8:30	quiet play
	8:30 - 9:00	class #1
	9:00 - 9:30	recess
	9:30 - 10:00	class #2
	10:00 - 10:45	outdoor play
	11:00 - 11:30	lunch
	11:30 - 2:30	nap
P.M.	2:30 - 3:10	get up and snack
	3:10 - 4:10	outdoor play
	4:10 - 4:30	indoor play
	4:45 - 5:10	supper

China, School #8

A.M.	7:00 - 7:10	morning exercises
	7:20 - 7:40	breakfast
	7:40 - 8:10	play
	8:10 - 8:45	class #1
	8:45 - 9:00	drink
	9:00 - 9:20	watch TV
	9:20 - 10:40	outdoor play
	11:10 - 11:30	lunch
	11:30 - 2:00	nap
P.M.	2:30 - 2:40	snack
	2:40 - 3:10	class #2
	3:10 - 4:30	play
	5:10 -	supper

Canada, School #1

A.M.	8:50 - 9:00	arrival
	9:00 - 9:30	class activity
	9:30 - 10:30	individual activity
	10:30 - 11:00	French/English
	11:00 - 11:15	snack
	11:15 - 11:40	movie, outdoor play, library, etc.

Canada, School #2

A.M.	8:45 - 9:00	arrival
	9:00 - 9:30	class activity
	9:30 - 10:00	one project
	10:00 - 10:30	individual activity
	10:30 - 11:00	French
	11:00 - 11:15	juice
	11:15 - 11:40	class activity

Canada, School #3

P.M.	12:50 - 1:00	arrival
	1:00 - 1:30	class activity
	1:30 - 1:45	individual activity
	1:45 - 2:15	French
	2:15 - 2:30	individual activity
	2:30 - 2:50	snack
	2:50 - 3:15	class activity

Canada, School #4

A.M.	8:55 - 9:05	arrival
	9:05 - 9:30	class activity
	9:30 - 10:00	individual activity
	10:00 - 10:30	French
	10:30 - 10:45	recess
	10:45 - 11:30	individual activity

Canada, School #5

P.M.	12:40 - 12:55	arrival
	12:55 - 1:15	class activity
	1:15 - 2:00	individual activity
	2:00 - 2:20	class music activity
	2:20 - 2:50	French
	2:50 - 3:20	class activity

Canada, School #6

A.M.	8:55 - 9:00	arrival
	9:00 - 9:30	class activity
	9:30 - 10:30	individual activity
	10:30 - 10:40	snack and show & tell
	10:40 - 11:10	French
	11:10 - 11:30	class activity or outdoor play

Canada, School #7

P.M.	12:45 - 12:50	arrival
	12:50 - 1:30	class activity
	1:30 - 2:20	individual activity
	2:20 - 2:50	French
	2:50 - 3:00	snack
	3:00 - 3:20	class activity

Canada, School #8

A.M.	8:50 - 9:25	outdoor play
	9:25 - 10:00	individual activity and snack
	10:00 - 10:30	French
	10:30 - 11:10	individual activity
	11:10 - 11:40	class activity

## APPENDIX D.

PICTURES, SONGS, STORIES, RHYMES AND SHOWS WITH COOPERATIVE CONTENT  
OBSERVED IN THE CHINESE SAMPLE AND THE CANADIAN SAMPLEI CHINESE SAMPLEA. Pictures for language class (look and say):

1. two kids play blocks together with one handing a piece of block to the other. (ii)
2. five kids build a snow man together. (i)
3. invite friend to play with a new toy just brought back by mommy. (ii)
4. give one's own seat to an old man on bus. (iii)

B. Singing with performance:

5. "You help me to do my hair. I help you to button your clothes. We are good friends." (iii)
6. "A little kid fell on the street. She was crying 'Mommy'. I ran over and helped her up very fast. I sent her back home happy." (iii)
7. "I'm making a call to a friend. Hello friend." (i)
8. "My little drum, don't make noise, my little sister is sleeping. No disturbing. (i)

(i) getting along; (ii) sharing; (iii) helping

C. Stories:

9. A kitten was lost. Different animals helped him to find his own home. (iii)
10. Granny left home for weekend. The wind blew hard and the dates she grew fell down on the ground. The hedgehog helped her to harvest them without earing any." (iii)

D. Rhyme:

11. "The sheep stepped on the rooster and hurt his paw. The sheep said 'sorry'. The rooster smiled and said 'It doesn't matter'. (i)
12. Say nice words to people around in everyday life. (i)

E. Shows:

13. Puppet show: Three friends living on the same tree were lazy and expected others to ask woodpecker to help with the worm. Finally the tree fell and they cooperated to build a new house. (i)
14. Older kids came and put on a short show for language teaching. A girl was run into by a boy and fell on the ground. The boy helped her up and suggested playing together. (i)

II CANADIAN SAMPLEA. Singing with performance:

1. "Good morning. I'm happy. I hope you're happy too." (i)

(i) getting along; (ii) sharing; (iii) helping

2. "Such a happy day. You smile at me and I smile at you. We take turns and share play things. You'll be happy." (ii)
3. "Hello to you, my friend." (i)
4. "Good morning. How are you x x x (those who were absent the day before)?" (i)

B. Stories:

5. Witch let the ghost live with her because she didn't have a place to live. (ii)
6. Send a birthday gift to the moon. (i)

(i) getting along; (ii) sharing; (iii) helping

APPENDIX E  
EXAMPLES OF PARTIALLY SELF-DIRECTED ACTIVITY OBSERVED  
IN CHINA AND CANADA

1. Children's discussion on one topic suggested by the teacher (such as things happened at home; my mother; our last trip; our behavior in the last two days).
2. Outdoor activity -- looking for the spring.
3. Show & Tell.
4. Children talk about what they like about themselves and what they can do well.
5. Children make suggestions for writing a "thank you" note.
6. Game "Uncle helps me to find a friend" in which "me" describes a friend's appearance verbally and the "Uncle" will find the person and bring him/her to "me".

## APPENDIX F

## POSITIVE ELEMENTS IN PROGRAMS OBSERVED IN CHINA AND CANADA

China:

1. Teacher reminds children to share before free play starts.
2. Teacher suggests the whole class clap for those who give the correct answers or do things well.
3. Teacher reinforces helping behavior at timely moments.
4. Teacher handles conflict well by leading the child to take other's perspective and teaches alternatives (e.g., provides a polite way to ask for a turn to play with a toy);
5. Teacher plays with children in free play.
6. In games, teacher reinforces fair play, honesty, and perseverance instead of just winning.
7. There is time for physical exercises everyday.

Canada:

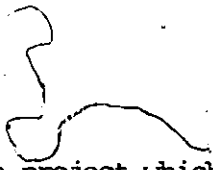
1. Language class is well designed. Teacher is playful. A lot of games, stories, music and handicraft involved. Children are happy and active.
2. Teacher gives children chance to improvise in group singing.
3. In the whole class with two teachers, teachers let a few children be involved in some special activities at their own level and give more individual attention. Those children go back to the class activity when they finish. Teachers make sure that every child has a turn.

4. In the circle teacher sits at the same level as the children do.
5. Teacher is very observant and tries to meet different needs of different individuals. Teacher gives child very personal care and instruction. Teacher leads different individuals at their own pace.
6. Teacher helps to write down the children's stories on children's paintings.
7. Teacher calls children "my friend".
8. Teacher takes time to listen to children during circle time.
9. Teacher greets every child at the beginning of a school day.
10. Teacher gives a hug to those who didn't come the day before.
11. Teacher has very good relation with children and never yells or punishes children. Discipline is carried out in a pleasant way. Teacher channels instead of inhibits children's curiosity and spontaneity.
12. Teacher always talks positively with children.
13. Teacher encourages children to leave "show" toys in the class for others to play with.
14. Teacher arranges dressing up in a circle so that children can talk and move to help each other.

## APPENDIX G

## EXAMPLES OF COOPERATIVE ACTIVITY OBSERVED IN CHINA AND CANADA

1. Singing and dancing as a group
2. Outdoor games with children hand in hand.
3. Free role-play positive interaction between customers and shop assistants in a store setting with goods.
4. Outdoor hopping game. A group of children pretend to be rabbits to send paper turnips to the next group — their friends.
5. Musical game "Making a call to my friend" in which one child passed the lead to the other — his friend.
6. Teacher arranges children in groups of two. They tell self-made stories to each other.
7. Singing and clapping games in which children pass the lead among themselves.
8. Passing the ball in group of two.
9. Game "Uncle helps me to find my friend" in which "me" is supposed to describe "my friend" (e.g., clothes, face, hair, etc.) verbally, then "Uncle" is supposed to go and find the right person and bring ~~him/her~~ to "me".
10. Game "I've lost my partner" in which some children skip in the circle and bring in more people to skip together.
11. Older children come to tell their self-made stories one-on-one.

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12. Teacher arranges a project which needs joint effort (e.g., make jello or pumpkin bread together).
  13. "Show & Tell" with sharing the objects afterwards (e.g., let everyone hug the doll, let a friend operate the robot).
  14. Game "hot potato" in which children pass the ball in the circle.
  15. Combine snack and "Show & Tell" together in which children are free to move, to share toys or food and socialize by their choice. Teacher makes sure nobody is left out (e.g., nobody pays attention to his show thing) and sometimes reads book brought by children).
  16. Singing and/or moving together.