MULTI-AGE GROUPING IN EARLY YEARS EDUCATION:

A DESCRIPTIVE STUDY OF THREE TEACHERS' MULTI-AGE CLASSROOMS

BY

JANE TURNER

A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of

MASTER OF EDUCATION

Faculty of Education
University of Manitoba
Winnipeg, Manitoba

March, 1993

ISBN 0-315-92320-2

Name Jane Turner

Dissertation Abstracts International is arranged by broad, general subject categories. Please select the one subject which most nearly describes the content of your dissertation. Enter the corresponding four-digit code in the spaces provided.

Early Childhood — SUBJECT TERM

0518 — SUBJECT CODE

U·M·I

Subject Categories

THE HUMANITIES AND SOCIAL SCIENCES

COMMUNICATIONS AND THE ARTS
Architecture 0729
Art History 0377
Cinema 0900
Dance 0378
Fine Arts 0357
Information Science 0723
Journalism 0391
Library Science 0399
Mass Communications 0708
Music 0413
Speech Communication 0459
Theater 0465

EDUCATION
General 0515
Administration 0514
Adult and Continuing 0516
Agricultural 0517
Art 0273
Bilingual and Multicultural 0282
Business 0688
Community College 0275
Curriculum and Instruction 0727
Early Childhood 0518
Elementary 0524
Finance 0277
Guidance and Counseling 0519
Health 0680
Higher 0745
History of 0520
Home Economics 0278
Industrial 0521
Language and Literature 0279
Mathematics 0280
Music 0522
Philosophy of 0998
Physical 0523
Psychology 0525
Reading 0535
Religious 0527
Sciences 0714
Secondary 0533
Social Sciences 0534
Sociology of 0340
Special 0529
Teacher Training 0530
Technology 0710
Tests and Measurements 0288
Vocational 0747

LANGUAGE, LITERATURE AND LINGUISTICS
Language
- General 0679
- Ancient 0289
- Linguistics 0290
- Modern 0291

Literature
- General 0401
- Classical 0294
- Comparative 0295
- Medieval 0297
- Modern 0298
- African 0316
- American 0591
- Asian 0305
- Canadian (English) 0352
- Canadian (French) 0355
- English 0593
- Germanic 0311
- Latin American 0312
- Middle Eastern 0315
- Romance 0313
- Slavic and East European 0314

PHILOSOPHY, RELIGION AND THEOLOGY
Philosophy 0422
Religion
- General 0318
- Biblical Studies 0321
- Clergy 0319
- History of 0320
- Philosophy of 0322

Theology 0469

SOCIAL SCIENCES
American Studies 0323
Anthropology
- Archaeology 0324
- Cultural 0326
- Physical 0327

Business Administration
- General 0310
- Accounting 0272
- Banking 0770
- Management 0454
- Marketing 0338

Canadian Studies 0385
Economics
- General 0501
- Agricultural 0503
- Commerce-Business 0505
- Finance 0508
- History 0509
- Labor 0510
- Theory 0511

Folklore 0358
Geography 0366
Gerontology 0351
History
- General 0578
- Ancient 0579
- Medieval 0581
- Modern 0582
- Black 0328
- African 0331
- Asia, Australia and Oceania 0332
- Canadian 0334
- European 0335
- Latin American 0336
- Middle Eastern 0333
- United States 0337

History of Science 0585
Law 0398
Political Science
- General 0615
- International Law and Relations 0616
- Public Administration 0617

Recreation 0814
Social Work 0452
Sociology
- General 0626
- Criminology and Penology 0627
- Demography 0938
- Ethnic and Racial Studies 0631
- Individual and Family Studies 0628
- Industrial and Labor Relations 0629
- Public and Social Welfare 0630
- Social Structure and Development 0700
- Theory and Methods 0344

Transportation 0709
Urban and Regional Planning 0999
Women's Studies 0453

THE SCIENCES AND ENGINEERING

BIOLOGICAL SCIENCES
Agriculture
- General 0473
- Agronomy 0285
- Animal Culture and Nutrition 0475
- Animal Pathology 0476
- Food Science and Technology 0359
- Forestry and Wildlife 0478
- Plant Culture 0479
- Plant Pathology 0480
- Plant Physiology 0817
- Range Management 0777
- Wood Technology 0746

Biology
- General 0306
- Anatomy 0287
- Biostatistics 0308
- Botany 0309
- Cell 0379
- Ecology 0329
- Entomology 0353
- Genetics 0369
- Limnology 0793
- Microbiology 0410
- Molecular 0307
- Neuroscience 0317
- Oceanography 0416
- Physiology 0433
- Radiation 0821
- Veterinary Science 0778
- Zoology 0472

Biophysics
- General 0786
- Medical 0760

EARTH SCIENCES
Biogeochemistry 0425
Geochemistry 0996
Geodesy 0370
Geology 0372
Geophysics 0373
Hydrology 0388
Mineralogy 0411
Paleobotany 0345
Paleoecology 0426
Paleontology 0418
Paleozoology 0985
Palynology 0427
Physical Geography 0368
Physical Oceanography 0415

HEALTH AND ENVIRONMENTAL SCIENCES
Environmental Sciences 0768
Health Sciences
- General 0566
- Audiology 0300
- Chemotherapy 0992
- Dentistry 0567
- Education 0350
- Hospital Management 0769
- Human Development 0758
- Immunology 0982
- Medicine and Surgery 0564
- Mental Health 0347
- Nursing 0569
- Nutrition 0570
- Obstetrics and Gynecology 0380
- Occupational Health and Therapy 0354
- Ophthalmology 0381
- Pathology 0571
- Pharmacology 0419
- Pharmacy 0572
- Physical Therapy 0382
- Public Health 0573
- Radiology 0574
- Recreation 0575
- Speech Pathology 0460
- Toxicology 0383

Home Economics 0386

PHYSICAL SCIENCES

Pure Sciences
Chemistry
- General 0485
- Agricultural 0749
- Analytical 0486
- Biochemistry 0487
- Inorganic 0488
- Nuclear 0738
- Organic 0490
- Pharmaceutical 0491
- Physical 0494
- Polymer 0495
- Radiation 0754

Mathematics 0405
Physics
- General 0605
- Acoustics 0986
- Astronomy and Astrophysics 0606
- Atmospheric Science 0608
- Atomic 0748
- Electronics and Electricity 0607
- Elementary Particles and High Energy 0798
- Fluid and Plasma 0759
- Molecular 0609
- Nuclear 0610
- Optics 0752
- Radiation 0756
- Solid State 0611

Statistics 0463

Applied Sciences
Applied Mechanics 0346
Computer Science 0984
Engineering
- General 0537
- Aerospace 0538
- Agricultural 0539
- Automotive 0540
- Biomedical 0541
- Chemical 0542
- Civil 0543
- Electronics and Electrical 0544
- Heat and Thermodynamics 0348
- Hydraulic 0545
- Industrial 0546
- Marine 0547
- Materials Science 0794
- Mechanical 0548
- Metallurgy 0743
- Mining 0551
- Nuclear 0552
- Packaging 0549
- Petroleum 0765
- Sanitary and Municipal 0554
- System Science 0790

Geotechnology 0428
Operations Research 0796
Plastics Technology 0795
Textile Technology 0994

PSYCHOLOGY
General 0621
Behavioral 0384
Clinical 0622
Developmental 0620
Experimental 0623
Industrial 0624
Personality 0625
Physiological 0989
Psychobiology 0349
Psychometrics 0632
Social 0451

MULTI-AGE GROUPING IN EARLY YEARS EDUCATION:

A DESCRIPTIVE STUDY OF THREE TEACHERS' MULTI-AGE CLASSROOMS

BY

JANE TURNER

A Thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements for the degree of

MASTER OF EDUCATION

Abstract

The primary purpose of this study was to describe the organization and day to day operation of three multi-age classrooms in which students were grouped heterogeneously for pedagogical reasons. A second purpose was to examine the beliefs of the three teachers in these classrooms with regard to teaching and learning in a multi-age setting.

Three case studies were developed on the basis of interviews with the participating teachers and observations in their classrooms. Each case study was divided into seven sections. These were entitled: The teacher; The child; The Classroom; A Day in the Life of the Classroom; Record Keeping and Evaluation; The Teacher's Reflections on Teaching in a Multi-age Classroom; and Final Reflections (The researcher's reflections on the case study).

The meaning of the data was discussed both in the body of the case studies and in a separate chapter entitled "Themes". The themes reflected commonalities in the teachers' beliefs about teaching and learning in a multi-age setting, their instructional methods, their methods of record keeping and evaluation, and the organization of their classrooms. The themes were grouped into three sections entitled: Child-Centred Integrated Learning; Positive Realistic Self Esteem for All Children; and Communities of Learners.

It was found that curriculum in the three classrooms was based largely on the needs and interests of the children in

those classes. Learning began with the children's own experiences and was very often integrated across subject areas in order to be of relevance to the learners. The three teachers were also concerned with meeting the needs of the whole child - social, emotional, and physical as well as intellectual development.

All three teachers in the study believed that multi-age grouping facilitated the development of positive realistic self esteem in their students. Children in the three classes were encouraged to be independent and responsible for their own learning, and they had many opportunities to help others. The element of comparison often found in single grade classrooms was virtually eliminated in the multi-age classes.

A strong sense of community was evident in the three multi-age classes. Learning was very much a social affair, and students, teachers, and parents worked together to help one another. This supportive climate encouraged children to be risk-takers in their own learning.

Acknowledgements

I would like to thank "Amy", "Rachel", and "Gail", the three teachers who so willingly opened the doors of their classrooms and shared their thoughts and ideas about teaching and learning in a multi-age setting.

I would also like to thank the members of my thesis committee, Kelvin Seifert, Paul Madak, and Wayne Serebrin. Their advice and support were invaluable throughout the development, research, and writing of this thesis.

Finally, I wish to thank my husband, David, without whose encouragement, support, and typing assistance I would not have been able to complete this thesis.

Table of Contents

List of Tables

CHAPTER 1

Introduction

Multi-age grouping is the practice of placing children who are at least a year apart in age in the same classroom. This departure from the traditional organization of primary education into grade levels (kindergarten, grade one, grade two, and grade three) is sometimes also referred to as multi-grade grouping, family grouping, vertical grouping, heterogeneous grouping or non-graded education. For the purpose of this study the term "multi-age" will be used. The reasons for creating multi-age classrooms fall into two distinct categories - administrative and pedagogical. A recent study conducted by the Canadian Education Association (1991) indicated that administrative reasons were most frequently cited as the reasons for creating multi-age classrooms. Enrollment within a school was given most often as a reason, followed by balancing of class size, board policy, collective agreement on pupil-teacher ratio, budget restrictions and use of available space.

For pedagogical reasons, multi-age grouping has been practiced in the British Infant Schools for nearly half a century. Multi-age grouping in Britain is described by Mycock (cited by Ford, 1977) "as a method of school organization in which children of different ages are, as a deliberate educational policy, placed together in the same class". Maria Montessori believed that younger children

could learn from older children, and Montessori classes have also traditionally included children of different ages. More recently, the British Columbia Ministry of Education has mandated the practice of multi-age grouping in all primary grades (kindergarten to grade three) in that province (B.C. Primary Program Foundation Document, 1990). In each of these instances, multi-age classes have been created as result of a philosophical stance regarding early years education. They were founded on the belief that multi-age classes can provide greater opportunities for learning than single grade classes.

The five multi-age classes which are the subject of this study, fall into the second category. In other words, they were created largely for pedagogical reasons. The school in which the classes are located has deliberately chosen to group primary students (in grades one, two, and three) heterogeneously. Other multi-age classes do exist in Manitoba. However, they have been created either for administrative reasons, such as low enrollment, or as alternative programs which are offered alongside graded classes within a school or school division. This study, therefore, proposes to tell the "story" of multi-age grouping within a particular school and within three primary classrooms. Its purpose is to collect a body of descriptive data in order to provide new insights into teaching and learning in multi-age settings. A secondary purpose is to engage the three teachers in the study in a process of

dialogue and reflection regarding their own beliefs and practices, as teachers in a multi-age program.

Review of Related Literature

The literature regarding age relations among primates and age relations in simple societies indicates that there has been no precedent for age grouping as it is currently practiced in our schools. Pratt (1983) found that grouping children by age, whether for education, recreation, work or other purposes, is a fairly recent phenomena, which has occurred largely in the last two hundred years. Research on the socialization of primates indicated that in most species the infant and juvenile play group is heterogeneous in age. Pratt also found that in non-technological societies, there is pervasive contact among children of different ages, and that there is no equivalent of the narrow, formalized age grouping which is found in modern schools.

The pattern of age segregation as we know it, was established in both Europe and North America in the nineteenth century. As increasing numbers of children in the industrialized nations began to attend school, a more or less uniform age of school entry was established, and progress through the grades on the basis of age became a regular practice (Pratt, 1983, p.12)

Katz, Evangelou, and Hartman (1990) in their book <u>The Case for Mixed-Age Grouping in Early Education</u> concurred

with Pratt's findings. They found that children in all cultures learn from one another, and that throughout human history family and neighborhood groupings have informally provided much of children's socialization and education. They suggested that the organization of our schools seems to be based on "a factory model, which uses an assembly line to subject homogeneous materials to identical treatments in order to yield uniform products" (Katz et al., 1990, p.7). They pointed out that schools and child care centres are increasingly replacing families and neighbourhoods as contexts for child-child interaction, and they wondered whether or not children are losing something valuable by having limited opportunity to interact with older and younger children.

Both Pratt(1983) and Katz et al.(1990), in reviewing the research, found that multi-age grouping generally appears to offer advantages over age-graded grouping in both academic achievement and social development. Table 1 shows Pratt's summary of the results of 27 empirical studies reported between 1948 and 1981 that looked at the academic and social outcomes of multi-age grouping (Pratt, 1983, p.18)

Table 1. Empirical Studies in Multi-age Grouping: 27 Studies

	Academic Achievement	Social Development
Studies favouring conventional grouping	3	0
Inconclusive studies	12	6
Studies favouring multi-age grouping	10	9

With some justification, Pratt (1983) was very critical of the research on multi-age grouping. He suggested that many multi-age classrooms do not differ significantly from single age classrooms and, in fact, are not, in either curriculum design or classroom organization, really different from the traditional classroom. Katz et al.(1990) also criticized the research on this basis. They recognized that any perceived benefits from multi-age grouping, may, to some extent, depend on both the curriculum and the teaching strategies employed. Another source of criticism came from Goodlad and Anderson (1987) in their book The Non-Graded Elementary School. They suggested that educators and researchers need to develop clear definitions and guidelines for non-gradedness. They stated that, "It is therefore not useful when a researcher says there were achievement (or other) differences, or that there were not any such differences, if that researcher has not demonstrated that

the procedure of the two units were in fact different from each other and correspond with their labels" (Goodlad and Anderson, 1987, p.xiv).

A review of the literature conducted by the Canadian Education Association [CEA] in 1991 found results similar to those of Pratt's (1983). One of the largest studies cited was a comparison study conducted by Gajadharsingh and Melvin (1987) in Saskatchewan. The Canadian Test of Basic Skills was used to examine the performance of 4,407 students in multi- and single-grade classrooms. The results clearly indicated that based on the CTBS, the achievement of multi-grade students was significantly higher in vocabulary, reading, mathematics problem-solving, and mathematics total.

In reviewing the research as it relates to academic achievement, the CEA Report indicated that almost all the research showed that academic achievement of multi-grade students is equal or superior to that of students in single grade classrooms. It has been noted, however, that in virtually all of the comparisons between single and multi-age classrooms, measures of achievement were based on achievement scores from tests in mathematics, language arts, vocabulary, and spelling. This is an important consideration when evaluating the research on academic gains in multi-age classrooms, as there is considerable evidence that achievement tests alone are not a valid measure of students' academic proficiency (NAEYC Position Statement on Standardized Testing of Young Children, 1987).

Both research and current theories of learning support the idea that cognitive development is enhanced when children interact with other children who are at different levels of cognitive maturity. Vygotsky (1978) used the phrase, "zone of proximal development" to describe the difference between what a child can do by himself/herself and what he or she might accomplish with the assistance of a more competent peer or adult. He believed that interactions between those with conflicting understandings leads to cognitive restructuring on the part of the less informed individual. Katz et al.(1991) argued that ranges of competence found in the multi-age classroom offer varying levels of cognitive input, and therefore promote greater learning. In a number of studies based on Piaget's work, researchers found that children who were paired with a more advanced child were later able to solve conservation tasks, while children who had worked individually had not improved (Tudge and Caruso, 1988). In a study of preschoolers and kindergartners in a multi-age class Lougee, Gruenich, and Hartup,(1977) found that the linguistic maturity of the younger children improved as they addressed older peers.

As with academic achievement, the research on the social effects of multi-age grouping is not based on a clear and consistent definition of multi-age grouping. Pratt (1983) stated that, "Many of the studies suffer from weak design, with lack of adequate control of differences between teachers and schools which elected or rejected multi-age

grouping". In the twenty-six studies which he reviewed, attitude toward school and self-concept were the most common variables. He concluded that, "interaction of individuals of differing ages appears to confer certain affective benefits"(Pratt, 1983, p.30).

The CEA Report (1991) indicated that students in multi-grade classes tended to do better than those in single grade classes in the following areas: study habits, social interaction, self-motivation, cooperation, and attitudes towards school. The Carleton Board of Education Review (1990), found that the following affective areas were more positive in multi-age settings: self-concept and attitude toward school; happiness and satisfaction; social adjustment; and student anxiety levels. In the Mycock study (cited by Ford, 1977) students in multi-age classes indicated an increased sense of security of belonging. Johnson, Johnson, Pierson, and Lyons (1985) found that students in multi-age classes showed higher motivational levels than students in single grade classes.

Katz et al. (1990) reviewed the research in relation to: (1)how children perceive one another and adapt their behaviour and expectations accordingly, (2) how children exhibit specific prosocial behaviours in mixed-age situations, and (3) how children's group participation varies. They drew the following conclusions:

> Mixed age group interaction elicits specific prosocial behaviours such as helping, sharing,

> and taking turns, which are important in young children's social development. Mixed-age groups provide older children with leadership opportunities, which may be especially important for some at-risk children and provide younger children with opportunities for more complex pretend play than they could initiate themselves (Katz et al., 1990, p.21).

In addition to looking at affective and cognitive development, the CEA Report (1991) examined the attitudes of parents, teachers, and administrators towards multi-age grouping. The research indicated that parents generally had negative attitudes towards the practice of multi-age grouping. Their concerns centred around academic achievement, how the children are taught, and whether or not the teacher gave equal attention to all age groups. The report stated that, "Presumably, a parent feels that no learning is taking place if the teacher is not engaged in direct instruction. What parents see as a disadvantage may be an advantage, because much of the research shows that students develop such traits as independence, dependability, and self-reliance" (CEA Report, 1991, p.11). Several studies were cited which indicated that effective public relations programs could change parents' attitudes towards multi-age grouping, and it was suggested that educators need to design an ongoing information program to demystify multi-age grouping (CEA report, 1991, p.12).

Teachers in both multi-age and single grade classrooms also tended to have negative attitudes towards multi-age grouping (CEA Report, 1991). Most teachers believed that multi-age grouping placed a heavier burden on them, and that students in multi-age classes received an inferior education. An evaluation study by the Edmonton Public School Board (cited by Craig and McLellan, 1988) concluded that teachers generally would prefer to teach in a regular class and would like to see multi-age classes decrease in number or be eliminated completely.

Very little data exists on the attitudes of administrators towards multi-age grouping (CEA Report, 1991). The only study cited was the Edmonton Public School Board evaluation in which half of the principals surveyed (42 out of 83) said it was inadvisable to have multi-age classrooms in elementary schools (CEA Report, 1991).

The CEA Report (1991) is also noteworthy because teachers as well as principals who were teaching, or who had taught multi-grade classrooms across Canada, were asked to assess the psycho-social and cognitive development of their students by comparing them to single grade students whom they had taught at equivalent grade levels. The assessments were based on their observations of students, and the results of teacher tests and standardized tests. Students were rated on ten traits in relation to psycho-social development. More than 80% of all respondents indicated that multi-grade students were "comparable" or "superior" to

students in equivalent single grades (CEA Report, 1991, p.55). Cognitive development was assessed in language arts, mathematics, science, and social studies. Over 85% of respondents assessed cognitive development in each of these areas as "comparable" or "superior" to that of students in single grades (CEA Report, 1991, p.55). This study was well designed. Care was taken to obtain a representative sample of schools from each province, and a representative balance of urban and rural schools. Teacher and principal assessments were based on observations as well as standardized tests. The sample represented 10% of all school districts across Canada, and the response rate was high (89.9% Of all superintendents contacted responded).

Teachers involved in the study were also asked to give opinions on two related questions: their most serious instructional problems, and the areas of instruction in which they would like some assistance. Integration of curricula and individualization of instruction were most frequently cited as problems (CEA Report, 1991). The areas of instruction in which they stated they needed assistance included the development of effective strategies for the basic subject areas (math, science, language arts, social studies), and the development of skills in group work, individualized instruction, and classroom organization (CEA Report, !991). Although the CEA Report (1991) recommended the development of curriculum and instructional strategies

for multi-age programs, it did not suggest a conceptual framework for multi-age grouping.

Goodlad and Anderson (1987) did address the need for a conceptual framework which would support the practice of multi-age grouping. They viewed non-gradedness as an enabling or facilitating device to achieve certain curricular changes. They suggested that educators and researchers need to develop clear definitions and guidelines for non-gradedness. These should include the goals of schooling, school organization, curriculum, instruction, and evaluation. They proposed a reconceptualization of curriculum, stating that, "What is taught and when becomes less important than what concepts, skills, and values are being learned and how well. The timing and placing of learning processes become more important than the grade placement of specific learning tasks" (Goodlad and Anderson, 1987, pp. 84,85). Their longitudinal view of curriculum rejected the organization of content by grade, and supported the concept of continual student progress along a developmental continuum.

Katz et al. (1991) further expanded the conceptual framework for multi-age grouping. They drew a distinction between what they called unidimensional and multidimensional classrooms.

> A unidimensional classroom defines academic ability and work narrowly and uses a restricted range of performance criteria to evaluate

> children. In these classes, the assigned tasks tap only a limited range of children's abilities and interests. On the other hand, multidimensional classes, whether single-aged or mixed offer a comparatively wide range of activities in which varying levels of skills can be applied. A variety of performance criteria are valued and accepted as legitimate (Katz et al., 1990, p.5).

The authors suggested that multi-age classes are more likely to exhibit multidimensional characteristics than are single grade classes.

The British Columbia Primary Program Foundation Document, which was published in 1990, was developed as a result of a Royal Commission Report on education in that province. This document was significant in that multi-age grouping was presented as one part of an overall plan or framework for primary education in the Province of British Columbia. Included in the document were the province's goals of education, and the conceptual framework for school organization, curriculum, instruction, and evaluation. Multi-age grouping was presented not as an end in itself, but as a means to achieve certain programming goals. These goals included the following:

> 1) Continuous progress of the learner according to his/her development, regardless of age or number of years at school.

2) Accommodation of diversity of learning rates and styles which occur naturally among children.

3) Assessment and evaluation of the learner's development in all areas (social, emotional, physical, aesthetic, and intellectual) in order to plan appropriate learning experiences.

4) Integration of curriculum across subject areas in order to provide authentic learning experiences which are relevant to the learner (B.C. Primary Program 1990).

The B.C. Primary Program not only provided a conceptual framework for multi-age grouping, but it mandated multi-age grouping at the primary level across an entire province. This was the first time in North America that the practice of multi-age grouping had been implemented on such large scale.

In reviewing the research on multi-age grouping, it becomes apparent that much of this research has indicated benefits in social, emotional, and cognitive development for students in multi-age classrooms. Unfortunately, most of this research has been conducted without establishing clear and consistent criteria for defining multi-age grouping. The CEA Report (1991) indicated that parents, teachers, and administrators generally have negative opinions about multi-age grouping. On the other hand, those teachers and administrators who teach or have taught multi-age classes, believe that students in those classes derived greater

cognitive and psycho-social benefits than students in single grade classrooms.

Educators are now suggesting that multi-age grouping calls for a reconceptualization of curriculum, instruction, and evaluation as well as the goals of education. It is not clear, however, whether multi-age grouping facilitates this philosophical shift, or whether the reverse is true.

Both educators and researchers need a better understanding of the process of implementation of multi-age grouping. Can this process alter the beliefs which teachers and administrators hold about teaching and learning? Does the curriculum change? Do methods of instruction and evaluation change? On the other side of the equation, does a change in philosophical perspective, move educators towards the practice of multi-age grouping?

What we do know, is that very little analytical or descriptive research exists on the topic of multi-age grouping. Why, for example, would a group of teachers elect to teach in a multi-age setting, when research indicates that the majority of teachers believe that multi-age grouping has more disadvantages than advantages. What beliefs or events would lead these teachers to conclude that students' needs are best served when they are grouped heterogeneously? As teachers gain experience in a multi-age setting, do their beliefs about teaching and learning change? We need to ask teachers these questions, and we also

need to look for answers in the day-to-day operations of multi-age classrooms.

For example, what interactive processes occur in multi-age classrooms, and what is the teacher's role in these processes? How do children and teachers spend their day? What are the nature and frequency of child-child interactions, and teacher-child interactions? How is the classroom organized with respect to space, time and materials? What instructional methods are used? How are students evaluated? We can develop new insights into the practice of multi-age grouping by examining the experiences of children and teachers in existing multi-age settings.

It was therefore, the purpose of this study to explore multi-age grouping in three classrooms where heterogeneous grouping was employed for pedagogical reasons. One of the study's aims was to provide a picture of multi-age grouping in the three classrooms. A second aim was to examine with the three teachers their beliefs about teaching and learning, and determine how those beliefs were translated into classroom practices.

CHAPTER 2

Method

The study was qualitative in nature. I used two methods for gathering data: interview of teachers and classroom observation. It should also be noted that I had worked in the school as both a teacher and as the director of the Early Childhood Centre for three years prior to the year in which the study took place. I was therefore able to provide additional background information based on my prior knowledge of the school, the students and the teachers.

Initially the three teachers were approached and asked to take part in the study. All three teachers agreed to participate. The school principal also agreed to the study, subject to the approval of the superintendent's department. Written permission to conduct the study was obtained from the superintendent of the school division. Approval for the study was also obtained from the Research and Ethics committee in the Faculty of Education at the University of Manitoba (See appendix).

A letter was sent to parents of children in the three classrooms requesting permission for their children to participate in the study. The letter included a description of the study and its purposes, and a permission slip to be signed and returned to the school with the student (See appendix). Parental permission was granted for all children to participate in the study. The three teachers also signed

a letter of consent, agreeing to participate in the study (See appendix).

The Setting

In order to begin to understand the three multi-age classes which were the subject of this study, it is important to have a clear picture of the school and the community in which they were located.

The school was a Kindergarten to Grade 9 school which was located in a suburban school division in South Winnipeg. It was built in the 1950's in what was then the southern-most part of the school division. As the population grew several additions were made to the building. These included a gymnasium, an office area, two kindergarten classrooms, and a multipurpose room. The building was a one-story structure which, as a result of the various additions, had a kind of piece-meal air about it. With approximately 350 students, and a number of special programs, the building was at the time of the study filled to capacity.

The school was located behind a small shopping mall which contained a supermarket and half a dozen small businesses. The intersection at which the mall was located is also a major intersection in the community, and numerous other businesses, including a hotel were situated within close proximity to the school. Across the street from the school was a large high school, housing approximately 800 students. The area surrounding the school was largely

comprised of regional housing units and a number of high rise apartment buildings. These apartment buildings extended several blocks down the street on which the school was located. To the south of this street was a busy high-speed highway. To the north was an older residential area, consisting mainly of small one-story homes built in the 1930's and 1940's. There were no parks, playgrounds (other than the school playground), community centres or libraries in the school's catchment area.

Although the school was located in suburban South Winnipeg, it had many inner city characteristics. The school's principal reported that income levels were significantly lower than those of surrounding areas. According to the 1986 census data, 33% of families in the school's catchment area were below the low-income level as compared to 17.9% for the surrounding community. Over 45% of the school's students were from single parent households.

The principal also reported that during the past five years, increasing numbers of immigrant and refugee families (largely from Eastern Europe, the Middle East and Central America) had settled in the school's catchment area. At the time of the study approximately 30% of all students were categorized as ESL (English as a second language) students, and as result received special programming consideration. The school also had higher than average numbers of referrals to the Child Guidance Clinic (15% as opposed to 11% divisionally), and it had one of the highest levels of

student involvement with the Child and Family Services Agency in the division. Transiency rates were also very high. The principal reported a 45% turnover of children during the previous school year.

Over the past five years, the school had been reorganized, and new strategies had been developed to address the changing needs of the community and the students. A successful community liaison program had been developed to help foster and maintain the critical connection between home and school. This had included the hiring of a community liaison worker and a volunteer coordinator, and the development of an early childhood centre in the school. The Early Childhood Centre was a resource to parents of children aged birth to 8 years old. The centre offered programs for parents and preschoolers, and it linked the activity of learning in the school to the wider scope of child development and parenting in the home.

A major school goal had been to develop and maintain a stronger working partnership with the community. As a result, two day care centres (a pre-school centre and a school-age centre) were housed in the school, and child care staff worked closely with school staff to meet student needs. A job retraining program for single unemployed mothers had been established through the cooperative efforts of the school, the parents and the community, and was also housed in the school building. Other cooperative endeavours had included the creation of a breakfast program, after-

school and summer recreational programs, and the improvement of playground facilities.

Another major school goal which had been identified was the need to address all aspects of students' development - social, emotional, physical, aesthetic, and intellectual, within a child-centred approach to teaching and learning. As a result of this stated goal, a number of organizational changes had been made within the school. First, the grades one, two, and three classes had been reorganized into multi-age classes. And second, the junior high classes had been undepartmentalized. Another outcome had been the school's efforts to develop curricula which reflected the multi-ethnic nature of the community, and to promote an awareness and understanding of human rights, within the school and the community.

The school staff consisted of the principal, vice principal, 24 teachers, 12 instructional assistants, community liaison worker, volunteer coordinator, secretary, and custodian.

The three multi-age classrooms which were the subject of this study were located in one wing of the school. The multi-age program was in its third year of operation.

The principal had played a critical role in the implementation of the multi-age program. He spent many hours meeting with primary staff and parents in the year before implementation. He supported the multi-age teachers by providing them with a range of professional development

opportunities related to multi-age grouping, and he made extra funding available for materials during the beginning years of the program. He also arranged for release time for the multi-age teachers in order that they could meet on a monthly to share ideas and discuss mutual concerns. The process of implementation which occurred in the school was really another "story" in itself.

Participants

Each of the teachers was given a pseudonym (Amy, Rachel, and Gail). In each of the multi-age classrooms there were between 19 and 21 children, one teacher and a teaching assistant. (See Table 2).

Table 2. Class Profiles

Teacher	Amy	Rachel	Gail
Total no. of students	19	19	21
Boys	8	10	12
Girls	11	9	9
6 Year olds	7	7	5
7 Year olds	6	7	10
8 Year olds	5	5	3
9 Year olds	0	0	1
ESL Students	3	3	5
Students with other special needs	2	1	1

The principal, in collaboration with the teachers, assigned students to each classroom, taking into consideration class

size, and the mix of students in terms of age, gender, and special needs. Students generally remained in the same class for a three year period.

The three teachers who were involved in the study, had diverse backgrounds in terms of their teaching experience in single grade as well as multi-age classes (See Table 3).

Table 3. Teacher Profiles

Teacher	Amy	Rachel	Gail
Total years of teaching experience	15	12	8
Years teaching a multi-grade class	.5	2.5	1.5
Years at present school	.5	2.5	5
Grade levels previously taught	N, K, 1,2,3	K, 1	2, 3, PE 1-6

All three teachers were female, and all three had deliberately elected to teach in the multi-age classes.

Procedure

In the initial interview, the three teachers were asked to describe their reasons for choosing to teach in the multi-age program. They were also asked to describe what they saw as the advantages and disadvantages of multi-age grouping, what if any problems they had encountered in moving from a single grade to a multi-age setting, and how they had addressed those problems. Finally they were asked

to describe how their role as a teacher had changed in a multi-age setting. The interviews were recorded on audio tape and later transcribed.

Following the initial interview with each teacher, I spent a day observing in each classroom. Observations were of a general nature. They included a brief description of the classroom and materials, a description of the activities which occurred throughout the day, a description of how children were grouped for activities, and a description of the teacher's role in each of the activities. Photographs were also taken of the materials and the physical layout in each of the classrooms. My rough field notes were handwritten, then later expanded and typed.

Following the initial interviews and the observations, I met with each teacher in order to share and reflect on the data and to clarify any statements or observations which were unclear. In consultation with the three teachers, it was agreed that a second interview would be conducted, focusing on the methods of assessment and evaluation used in each classroom. Evaluation was an integral part of programming in each of the classrooms, and both the teachers and I felt that this second interview was necessary in order to provide a more complete picture of the three programs.

In the second interview the teachers were asked to describe their methods of record keeping and evaluation, and to share any relevant documents such as checklists or observation guides. They were also asked to describe the

procedures used for reporting to parents and to provide a sample of their report cards. The interviews were recorded on audio tape, then later transcribed into a written form. Following this second interview, I met with each teacher to share the transcript of the interview and clarify any statements which were not clear.

The data from the interviews and observations and from my own experiences in the school was organized into three case studies. As the case studies were completed a member check was conducted with each of the three teachers for the purpose of establishing trustworthiness.

Data Analysis

Data analysis in this study was in a narrative form. The meaning of the data was discussed both in the body of the case studies and in a separate section entitled "Themes". In the case studies I attempted to describe each of the multi-age programs, and to capture the unique qualities of each classroom and each teacher. Each case study was divided into seven sections: the teacher; the children; the classroom; a day in the life of the classroom; record keeping and evaluation; the teacher's reflections on teaching in a multi-age classroom; and final reflections.

In the "Themes" section I noted some of the similarities and differences which were evident in the three programs, and I discussed the themes which I felt emerged

across the three case studies. All of the themes were tied to specific data in the observations and interviews.

Limitations of the Study

The major limitation of the study was the time frame. Teaching is a complex process and it was difficult to fully capture in a few brief observations and interviews the essence of an individual's teaching style and life in her classroom. The limited scope of the parental consent form was also very restrictive. There were many times when I felt that observations of individual children would have greatly enhanced the study.

CHAPTER 3

Gail

The Teacher

Gail (a pseudonym) began her teaching career as a physical education teacher. She graduated from the physical education program at the University of Manitoba with a major in elementary education. For the first four years after graduation she worked half time as an elementary phys. ed. teacher, and half time as an instructional assistant at the kindergarten and grade one levels. During this time she and I worked on the same staff, and I came to know her as both a friend and a colleague.

Having worked in a classroom setting during those first four years, Gail decided that she wanted a classroom of her own rather than a phys. ed. position, and she accepted a position in the school where she is currently teaching. She taught grade three for a year and then grade two for two years, before moving into the multi-age program.

Gail had always been interested in working with students with special needs, and in her present school, one or more special needs students had been assigned to her classroom each year. She considered herself fortunate in that she had always been able to work with the same instructional assistant, Donna (a pseudonym), in providing a special programming for these students. She and Donna developed a good working relationship and they functioned

very much as a team. Gail attributed this, in part, to the fact that they had been able to work together for longer than one year. (Instructional assistants are often reassigned to different classes at the beginning of each school year.) They also shared many similar interests outside of school and they had become good friends during the years they worked together.

During the five years at her present school Gail had become increasingly convinced that the school must play a larger role in meeting the social, emotional, and physical needs of its students. In a quiet but determined way, she had begun to address these needs in her classroom. One of the programs which she began in her classroom was a breakfast program. Realizing that many of her students were coming to school without breakfast, she began providing breakfast for any child in her class who needed it. She called it the "Breakfast Club" and she personally paid for the food. Eventually the school was able to secure funding for a breakfast program which was available to all children. But, it was largely through Gail's efforts that levels of awareness were raised in the school regarding the need for special programs to meet the nutritional and recreational needs of children in the community.

Gail and Donna both spent many hours involved in school related activities outside regular school hours. When a child in their classroom was apprehended by Child and Family Services and moved to a foster home outside of the catchment

area, they volunteered to drive her to and from school each day in order to maintain continuity in her school experience. Another example of their generosity in terms of both time and money was the fund raising which they had done for their classroom. Several times a week they baked and sold a variety of cakes and cookies in the staff room. Money from this ongoing bake sale was used to pay for field trips and to purchase materials for the classroom.

Initially Gail had many concerns about the concept of multi-age grouping. She worried that as a teacher she would not be able to meet the needs of such a diverse group. On the other hand she could see that even in a single grade classroom she was having to deal with a broad range of development. She said, "I noticed the range of kids in the classroom and how you had to teach to their level, whether they were labeled a grade three child or not. If they could only do the beginning skills then that's what you worked with."

For Gail, the most persuasive argument in favour of multi-age grouping, was the possibility that it could have a very positive impact on children's self esteem. In describing her experiences in the grades two and three classes, she said, "I noticed their self esteem was very low, and you were always looking for ways to make them feel successful, and yet they could see ...., they could compare themselves with the majority of the kids in the single grade classroom, and they knew they couldn't do the things that

they were doing." As she talked with colleagues about multi-age grouping, she became more and more convinced that it would eliminate many of the comparisons which occur in a single grade classroom, thereby raising children's levels of self esteem.

Another factor which Gail considered in her move to the multi-age program, was the sense of "family" which she felt would be enhanced in a multi-age classroom. This sense of "family" was something which she had worked very hard to cultivate in her single grade classroom. She said, "A ten month period is a short time to make a family and then have to say good-bye to everyone.... You end up trying to keep them in the classroom. Its the whole family sense again, and these kids need that so badly, to have that sense of belonging somewhere, and knowing the rules and knowing what to expect."

In the year leading up to the implementation of the program, Gail spent many hours reading and talking with colleagues about multi-age grouping, and she visited several other multi-age classrooms. She said, "It sounded so exciting. We read all of the literature and I guess deep down I was always looking for that answer to accommodate all the children in the classroom. I guess it was the one big opportunity to really give it a shot and teach to all the different levels."

The Children

At the time of this study there were a total of 21 children in Gail's classroom, 12 boys and 9 girls. Of the 21, five were 6 year olds, ten were 7 year olds, three were 8 year olds, and one was a 9 year old. One student in the group was significantly delayed in all areas of his development, and functioned at least three to four years below what would be expected for his chronological age. Five students were identified as having ESL requirements (speaking English as a second language). Donna had been assigned to Gail's classroom in order to assist Gail in providing special programming for all of these students. A second instructional assistant also worked with the ESL students on a regular basis (usually out of the classroom). Many of the students in Gail's room were also involved (both formally and informally) with the resource teacher and/or with the Child Guidance Clinic.

The Classroom

The classroom which was approximately 650 square feet was smaller than an average classroom space. It was located at the end of a long corridor. In one corner of the room there was a fire exit door which served all the classes along the corridor. The area in front of this door (a pathway along one wall in the classroom) had to be kept free of furniture or any materials which would block the exit.

To deal with the problem of the fire exit, Gail had positioned a row of low shelving about four feet out from the wall along which the fire corridor runs. This defined the space which was her classroom, without making the already small space seem smaller. She was still able to use the fire corridor for temporary activities such as reading and games.

Gail's classroom did not have a door. It was really just an extension of the corridor. It was once part of a large open area which in recent years has been partitioned into individual classroom spaces. The walls were thin and one could often hear the noise from other classrooms. Another multi-age classroom opened off the fire corridor which ran through Gail's classroom. Like Gail's room, this room did not have a door.

One's first impression upon entering the classroom was that every inch of available space had been utilized. Three round tables were situated in the centre of the classroom. Around the periphery of the room were an assortment of shelving units filled with a wide variety of materials. A low cupboard along one wall provided the only permanent storage space. All of the other shelving units were moveable. These included plastic storage crates which were stacked one on top of each other as well as larger heavier shelving units. Gail also used brightly coloured fabric pockets to store a variety of materials. These pockets were

attached to walls and to the ends of the shelves in various places around the room.

The room appeared to be loosely divided into centres. Because of the limitations of the space, the centres were not always clearly defined and many "centres" appeared to serve more than one purpose. For example, on the day when I observed, I noted that the sand table was not only used as a sand table, but that when the lid was placed on top, it became a surface to sort materials for recycling, and later a writing surface during the writer's workshop.

The centres which were readily apparent were sand and water, science, dramatic play, blocks, computer, listening centre, mathematics and reading. Throughout the classroom pencils, crayons, markers and paper were available for both art and writing activities. A variety of games, construction toys, and hands on math materials were stored in various places throughout the classroom. Most of the materials were organized into clear plastic bins. There was a small meeting area at the front of the room where the children could sit on the rug for a story or discussion. A portable stair with three steps stood against the wall in this area. When children or teachers were conducting a meeting or reading a story, they sat on these steps in front of the group.

One prominent feature in the room was a loft which had been built into one corner. The top section of the loft held a variety of large cushions, and a sign above it indicated that it was a reading loft. The section below was used for

today. I show them my note pad and explain that I will be writing about what they do.

All of the children have brought in a reading folder containing a book for the home-reading program. They record in a small scribbler the date, the title and their response to the book they have read. The responses vary according to the age and ability of the child. Older students write at least a paragraph about their book. Younger students sometimes record only the date and the title. As they complete this task, they place their reading record in their folder, return their book to the shelf and select another book for their folder. They then return their folders to a designated place.

In addition to dealing with the home reading task, the children perform a variety of other jobs. At one point Gail reminds them that jobs are posted on the blackboard. One child takes all the chairs off the tables. Two other children begin feeding and watering the animals. Two other children take responsibility for the calendar. They add the current date to the calendar, and they put the appropriate days on a display that says, "Yesterday was....., Today is....., Tomorrow will be....." . When Gail has completed the attendance folder, a child takes it to the office.

At the back of the room, two children are sorting materials for recycling. Gail and Donna have promoted recycling not only in their classroom, but throughout the

school for the past four years. They have placed recycling bins in the school, and children from other classes as well their own class bring a variety of materials to be recycled. The children sort the materials, and Gail and Donna take them to a recycling depot. The two boys who are responsible for this job today, sort through the various bags that have been brought into the classroom. They spend a considerable amount of time stepping on soft drink cans in order to flatten them.

While all of these things are happening, the children talk quietly amongst themselves and with Gail and Donna. Everyone quickly becomes engaged in one of the above tasks. There is little or no direction or prompting from the teachers.

At nine o'clock O'Canada is played on the intercom, and the children stop what they are doing, and stand and sing along. O'Canada is followed by announcements. When this is over, the children return to their work. At 9:10 a.m. another instructional assistant quietly and unobtrusively comes onto the classroom and takes a child for ESL work.

As the children complete their various tasks, they take a math sheet from one of several pockets at the end of a shelf. They sit at a table with their paper face down and write their name and the date on the back of the sheet. The math papers which are referred to as "mad minute" papers are different colours depending on the level of difficulty. "Mad minute" is a written speed test which the children do each

day. Although most of Gail's math program involves hands on work, Gail feels that the children still need this kind of daily practice with written calculations. She keeps track of each child's score on a large chart. The purpose of the chart is to encourage the children to compare their current scores with previous scores and to aim for improvement. As the children are working at several different levels they do not seem to compare their scores with each but rather focus on improving their own score.

9:20 a.m.

Children who are ready wait for the others to finish, and as they wait they talk quietly to each other. Gradually almost all of the children are seated. Donna asks several children whether or not they have their "mad minute". They quickly finish what they are doing, pick up their math papers and sit down. When everyone is seated, she asks, "Is anyone ordering lunch?" There is no response. Gail then announces that they will begin their "mad minute". She sets a timer for one minute and says, "Okay begin". The children turn their sheets over and begin to fill in the answers. They are very intent, and write their answers very quickly. Some children count on their fingers, in order to calculate their answers. Donna works with two children, who are doing what appear to be the easiest math sheets. When the minute is up, Gail says, "Stop! Pencils up. Okay, coloured pencils". There is a scramble for coloured pencils. Gail

says, "Ready to correct. Trade with anybody." There is still some hunting for coloured pencils, and some debate as to who should have which pencil. Gail says, "C'mon you guys. This is something we do every day. Be nice." The children quickly sort out the pencils and papers, and Gail reads out the answers to the questions. The children mark their classmates' papers as the answers are read, and then return the papers to their owner. Each child tallies up the number of correct answers on his/her paper. There is a great deal of talking as this is being done. Gail goes to a chart on the wall which says, "Math Club". She calls out each child's name, and the child responds with his or her score. When the score has been recorded, the child puts away his/her math paper and goes and sits on the carpet at the front of the room. This is again done without specific direction from either of the teachers.

9:30 a.m.

When all of the children are at the meeting area, Gail joins them and sits on the steps at the front of the room. Donna sits at the back of the group on a small chair. There is a brief discussion about the calendar. At Gail's request, one of the boys who had been responsible for the calendar, reads out the signs (Yesterday was..., today is...,etc.). She also asks him what day it is on the number line (a long strip of paper with a number for each day that they've been at school). He responds that it is 157. He then counts out

157 straws which are organized in cans in groups of ones, tens and hundreds.

With the calendar task completed, Gail asks, "So, who had a wonderful weekend?" Many hands shoot up. Gail says, "Let's listen and hear what people did." The children take turns talking about their weekend. They talk about such things as going swimming, going to a restaurant, seeing a fireworks display, and going fishing. The children sit quietly and most appear to be listening as the others talk. They frequently make comments and ask questions of their classmates. Gail and Donna also acknowledge each child's contribution with a question or comment.

It is difficult to understand several of the children who contribute. One child seems to have an articulation problem. Another speaks very softly and with some hesitation. Several others speak with a very heavy accent. The children and the teachers, however, do not appear to have difficulty understanding these children as they readily make comments and ask them questions regarding their contributions.

During this sharing time, the other instructional assistant returns with the child she had earlier taken out of the classroom, and she takes a second child out for ESL work. This is again done quietly and unobtrusively.

10:00 a.m.

When all of the children who wished to share have had an opportunity to speak, Gail reviews the plan for the day which is written on the board. They will be doing writing and math in the morning, and working with an "artist in the school", making hats in the afternoon. She announces that some of the children's stories which are ready for publishing have been typed and are now ready for illustrating. She cautions them, "Take your time to illustrate your stories." Donna distributes the typed stories to several children who take them to a table. The other children leave the meeting area and get out either journals or writing folders and take them to tables where they quickly begin to work. They are working at various stages of the writing process. Some are doing first drafts of stories, others, second drafts, and the group working with Donna are illustrating their stories which will be published.

One sees in the writing, a range of development. One child is drawing and printing his name and the names of some of the other children on his page. Another child draws a picture and then dictates his story to Donna. Other children are printing short stories or writing in their journals. Some of the writing is full of invented spelling. Some stories contain more conventional spelling. Some children are writing longer chapter stories. A few are using cursive writing.

Throughout the writing time the children talk quietly to one another, discussing their stories or asking each other about spelling. Occasionally a child will get up to sharpen a pencil or get a reference book or to ask Donna a question. All appear to be actively engaged in some aspect of the writing process.

While the children are writing, Gail sits on the floor in the meeting area and conferences with one child at a time. Children sign up for a conference by putting their name on the blackboard. Gail then calls the child whose name is at the top of the list. During the morning she has time to meet with two children. She spends about ten to fifteen minutes with each child. She begins by having the child read his/her current piece of writing to her. They discuss the content as well as the mechanics of writing.

At approximately 10:15 there is a fire drill. Without any warning the fire alarm sounds. Donna simply says, "Fire drill." The children quickly and quietly line up and, along with children and teachers from other classes, they file out through the fire door on to the playground. Gail grabs an attendance sheet and when the children are lined up outside, she calls out their names. They respond by raising their hand and saying, "Here." They chat quietly to one another until the buzzer sounds to indicate that they may go back into the school. They file back in and resume their work.

10:30 a.m.

The buzzer rings and Gail announces, "Okay, its recess. We'll share writing tomorrow."(Gail later explains that they normally have a time when they share their writing following writer's workshop. However, today they're running a little late because of the fire drill and because they had a longer sharing time. She also adds, "Be ready for a story when you come in." The children put their writing materials away and most push their chairs in before leaving the classroom. As the children file out, several former students from the grade four class stop by to chat briefly with Gail and Donna. Even though she does not have recess duty, Gail goes out with the children for recess. She explains that she or Donna or both almost always go out at recess in order to monitor the behaviour of their special needs students. During this recess period, Donna has a meeting with the principal.

10:45 a.m.

The buzzer rings and the children trickle back into the classroom. Donna is already back in the room. Gail comes in with the children and sits at the front of the room on the steps. The children sit on the carpet in front of her. Gail talks about a personal hygiene chart on the wall behind her. She calls each child's name and goes through the items on the chart (teeth, hair, face, bath, clothes change). The children respond with a "yes" or a "no" to each item. Gail

puts a check mark for each "yes". During this time Donna is busy putting materials on the tables for math.

Following the personal hygiene discussion, Gail reads a story called the "Wild Hamster" to the children. Before beginning to read, she holds up the book and talks about the author, the illustrator, and the dedication at the front of the book. As she is reading, the children listen attentively and occasionally make comments. During the story Gail stops to relate a personal anecdote related to the story, and a second time to point out the similarities between this story and another story that she had previously read to the children. At the end of the story the children spontaneously clap. Gail asks whether or not they think this was a true story and a lively discussion follows in which the children put forth various opinions.

Throughout the story "Thumper", the classroom rabbit, hops in and out amongst the children. Some of the children reach out and pat him as he passes near them. As the classroom does not have a door, Gail and Donna have constructed a low gate between the shelves so that the rabbit can run free in the classroom during the day. The children appear to be very conscientious about closing the gate when they are entering and leaving the classroom, and they remind all visitors to close the gate.

11:10 a.m.

When the discussion about the story has run its course. Gail says, "Here's the plan for math today," and she gives

instructions to three different groups regarding their math activities. One group is playing a game called "Counting Crunchies" with Donna. A second group is playing a money game with Gail. And a third group is doing written math with math texts and scribblers. Gail suggests to the group who are doing written math that they may go to a quiet place in the room if they find the others' games too noisy. As the children are leaving the meeting area, the other instructional assistant returns and takes two more children out of the room for ESL instruction.

The group who are playing "Counting Crunchies" consists of five children. They sit at a round table with Donna. In the centre of the table is a bowl of fruit loops and a pair of dice. Each child has a pencil and a piece of paper. Donna begins by explaining to the group how the game works. Each child throws the die and then announces his/her score to the group. They count out the number of fruit loops indicated by the die and place them in a pile in front them. The pencil and paper are used to keep track of the number of turns the child has had. After the child's first turn, he/she would write "1", after the second turn, "2", and so on. Most of the children add together the dots on the die by pointing and counting out loud. They all keep track of their turns by marking them on the paper, using a variety of strategies. Some children mark their turn before actually taking the turn. Others mark their turn after they have thrown the die and counted out their fruit loops. Some record turns

vertically, others horizontally on their paper. There is frequent discussion amongst the children as to whether or not they have counted accurately. When there is a dispute, Donna instructs the individual whose turn it is count again out loud.

Gail's group consists of eight children. They are crowded around a small table near a blackboard. On the ledge underneath the blackboard Gail had earlier placed approximately ten small items - a ball, some teddy cookies, some small toys, etc. Above each item she has marked a price. The prices range between three and ten cents. Each child is given a small dish of pennies. Gail asks two children to each select an item he or she would like to buy. She indicates the prices of the two items which have been selected and the children count out the corresponding number of pennies. She then asks how much the two children spent all together. The children put their two groups of pennies together, count out the total and announce their answers. Gail then says, "I would like to know your number sentence." The children dictate the number sentence and Gail writes it on the blackboard (e.g. 7+8=15). She then asks them for the word sentence and writes it on the board as well (e.g. seven plus eight is fifteen).

Some children in this group are able to mentally solve the problems which are posed before actually counting out their pennies. The counting activity simply seems to be a way for them to verify their predictions. Other children

appear to operating at a much more concrete level and use the counting and manipulation of the pennies as a way to solve the problem.

Gail extends the activity in a number of ways. For example, when the children have solved a problem, she asks them to check their answer by reorganizing their pennies into groups of two and recounting. She also creates subtraction problems by telling the children to start with a certain amount of money (e.g. 15 cents) and pretend that they are buying one or more items. They then must calculate how much money they have left and whether or not they can purchase additional items. She also asks them to make up their own story problems. At one point she has to leave in order to help the children who are doing written problems. She chooses a child to lead the group and to record the number sentences. The boy who has been selected stands on a chair in order to reach the blackboard. There is some debate about which items to buy and who should have a turn, but generally the game continues as before.

The group which is doing written math problems are working on double digit subtraction with borrowing. There are four children in this group. They appear to be quite focused on the task at hand and they do not seem to be distracted by the games which are going on beside them. Periodically one or another of the children in this group takes his/her book over to Donna and asks for assistance. Donna offers an explanation and the child returns to his/her

seat and continues working. When Gail notices that this is beginning to happen fairly frequently, she leaves her group and spends a few minutes assisting this group.

11:40 a.m.

Gail announces, "One minute to lunch time." Donna instructs her group to organize their fruit loops into groups of ten and to count them. She assists them in adding up their scores, and they discuss who has the most, least, etc. Finally she says that they may eat their fruit loops. Some children eat them right away, others take handfuls with them as they leave. In the meantime, Gail's group has put away their pennies, and the third group has put away their books. Gail takes a pair of dice and asks the two groups to predict how many rolls it will take for her to get to seven. There are many predictions ranging from two to twenty. As she rolls the die, the buzzer rings, but the children are absorbed in the game and do not appear to hear it. Finally she rolls a seven and there is considerable discussion about the various predictions and how close they were to the actual number of rolls.

11:48 a.m.

Gail ends the discussion by saying to the whole class, "Have a great lunch." The children get up and begin to file out of the classroom.

12:45 p.m.

As the children begin to file into the classroom, they chat with each other and with Gail and Donna. Some children bring an object with them, such as a book or a toy or an article of clothing, which they place on one of the round tables near the meeting area. When all of the children are seated on the floor in front of the steps, Gail announces that they are going to have "Show and Tell." She invites one child to begin.

Gail and Donna sit on chairs at the back of the group. They are also joined by the school psychologist who has brought something for "show and tell". Gail later explains that both she and Donna usually bring items for "show and tell" and that they also encourage other adults in the school to share items with the class.

The first child who has been selected brings her "show and tell" article (a dress) from the round table and holds it up for the group to see. She explains to the class that this was a dress that she wore to a wedding when she was three years old. A number of children raise their hands and when she calls on them they ask her questions about the dress. Some of the questions are: "Are you going to give that dress to your daughter?" "Is it a wedding dress?" and "Does it tie in the back or the front?" She responds to all of these questions, and at one point, with the assistance of Gail, even puts the dress on and models it for the class.

(Needless to say, it is very small and very tight!) When all of the questions have been answered she asks, "Who would like to show next?" The children and the adults who have brought items raise their hands and she selects the next person to share something.

The "show and tell" session continues in this fashion with each child bringing his/her item from the table, explaining it to the class, and then answering questions which are posed by the children and teachers. The items include books, stickers, hockey cards, stuffed animals, a balloon and a small car.

After several children have had a turn to show their items, the psychologist asks if she may show what she has brought, as she will have to leave shortly. She sits on the steps at the front of the room and produces a bird's nest and some eggs from her bag. She begins by explaining that she has a "sad story" to tell. She says that the nest and eggs were blown out of a tree near her home. She talks about how, in nature, birds sometimes die and eggs sometimes don't hatch. The children are very interested and ask a great many questions. They want to examine the nest and eggs which are contained in a clear plastic bag, and the psychologist agrees to leave them for everyone to look at during activity time.

Gail and Donna also have items for "show and tell". Gail brings an antique matchbox car. She tells the children where she bought it and why she thinks it's very special.

(She collects old matchbox cars.) The children are intrigued and again ask a great many questions.

Donna has brought a jacket which was given to her as a former member of the Winnipeg Blue Bomberettes Cheer leading Squad. She tells the children that she wore her jacket and marched in the Grey Cup Parade with other former Blue Bomberettes when the Grey Cup football game was held in Winnipeg. She talks to the children about the print on the jacket and explains to them the role of cheerleaders at a football games. They are once again very interested and ask many questions about the parade and the game. They struggle with the idea that Donna has done other things besides being a teacher.

One child, who has brought a toy to show the class, speaks very softly, and at first seems somewhat unsure of himself. As the children ask questions and he is able to respond, he seems to gain confidence. Gail later explains that this is the first time that this child has brought something for "show and tell" and that he had done so only with some prompting from her. She had spent a few minutes with him discussing some of the things that he might say about his toy prior to the "show and tell" session.

During "show and tell" time the children appear to be genuinely interested. They remember to put up their hands and take turns to speak, and their questions demonstrate that they have been listening to what was said. Later when I have an opportunity to talk to Gail, she explains that

they only have "show and tell" once a week on Fridays. She also explains that she spends some time at the beginning of the year reviewing with the children the purpose of "show and tell" time, the kinds of items that are appropriate to bring, and the kinds of questions that they should be asking. The older children model for the younger children how items are presented, as well as appropriate questioning techniques. The adults who participate in "show and tell" also model these behaviours.

1:45 p.m.

At the end of "show and tell" time Gail announces the names of two children who will be "choice time teachers". She also announces that blocks, sand, and the computer will be open today. The "choice time teachers" take turns calling out the other children's names. As their names are called the children leave the meeting area and select an activity in the classroom. They choose activities at a variety of centres including sand, blocks, art, dramatic play, science, books and computers.

During choice time Gail observes individuals and groups and records her observations in a scribbler. She explains to me that she and Donna alternate between observing and interacting with the children. Today Donna circulates about the room interacting with groups of children. The children are fairly independent in their activities, but occasionally they come to Gail as well Donna

to ask for assistance. When this happens, Gail puts down her scribbler and becomes involved for a few minutes.

At the sand centre, a group of three children are working with some small plastic people and animals. Donna asks them whether the group has a plan or, "Are you each doing your own thing?" The children state that they're "doing their own thing" and Donna accepts this and moves on to another centre.

At the dramatic play centre, Donna becomes involved with a group of children (at one point, six) who are playing "house". She participates in the play by eating "pretend dinners" and drinking "pretend cups of tea". Gradually the house becomes a store and Donna assists by bringing out the cash register and some money and by helping to rearrange the furniture to make a larger space for the store.

In the science centre, a group of three children works with a set of magnetic wands and some metal objects. Although this appears to be simply an exploratory activity, it sustains the interest of two of the children for the entire choice time period. At one point, the two children bring their wands to where I am sitting and demonstrate for me how they are able to pick up a variety of metal objects with the wands.

One group of girls is working in the writing area drawing pictures with the markers. They refer to several books for ideas and examples of certain pictures.

Most of the children remain at the same activity during "choice time". However, a few children change activities several times. Later I ask Gail whether or not there are restrictions on the numbers of children at each centre. She says that at the beginning of the year she decides what is an appropriate number of children for each centre. However, as the year progresses, she gradually turns responsibility for this decisions over to the children. Each day two children are designated "choice time teachers", and they also take responsibility for deciding how many children should be at each centre.

2:20 p.m.

The recess buzzer rings. Gail says, "You may leave your activities and go out for recess." The children quickly file out. During recess, Gail and Donna remain in the classroom. I share my observations with them and they answer some of the questions I have.

2:35 p.m.

Following recess, the children return to the classroom and continue with their choice time activities. Gail and Donna continue to observe and interact with them.

2:45 p.m.

A child comes over to Gail, points to the clock, and asks her if she has noticed what time it is. Gail says,

"Would you please remind the "choice time teachers". The child speaks quietly to the two children who are the "choice time teachers" and they go round the classroom and tell everyone it is cleanup time.

The children quickly put away their materials away. When they are finished, they take out their "choice time" books, which are simply scribblers cut in half. They sit at tables around the classroom and record what they have done during "choice time". As with their writing folders, there is a considerable range of development reflected in both the content of the writing, and in the conventions of print which are used. Some children write only a sentence stating something such as, "I played in the blocks." Others write a paragraph of five or six sentences, elaborating on what they did and who they worked with. One child simply draws a picture which Donna labels for him.

The children talk softly to one another during this time. They ask each other for help spelling words, and they refer to a list of names and another list of the centres which are posted on the bulletin board. Gail puts a tape in the ghetto blaster and it plays softly while the children are writing. Donna moves about the classroom, helping children with spelling. Gail sits at a table and continues for a few minutes to jot down notes in her observation book. When the children are finished writing in their "choice time" books they read them to either Donna or Gail. The

children who are finished first take a book to their tables and read while they wait for the others.

2:55 p.m.

Gail announces that they will be going to gym when they are finished writing in their books. The children quickly finish their writing and line up by the door. At three o'clock Donna takes them to the gym.

While the children are at the gym, Gail and Donna do some further tidying in the classroom and prepare materials for the next day. They chat about how the day has gone, and they share concerns about a child who had some problems during recess and at choice time.

3:30 p.m.

The children return to the classroom and prepare to go home. They place their chairs on the tables. Some choose books and place them in their home reading folders. Gail and Donna stand near the door and say good-bye to each child as he/she leaves.

They stay for another half hour, finishing preparations for the next day and chatting with other teachers. Gail says that she and Donna often talk on the phone in the evening if they don't have time to debrief during the day.

Record Keeping and Evaluation

Gail collects and records information about students in several ways. Some of her observations are recorded on a grid with the children's names. She uses this system for making brief notes throughout the day. She later transcribes these notes into a scribbler. For longer observations, such as reading and writing conferences, she writes whole paragraphs directly into her day book.

Donna also plays a very active role in observing and recording the children's progress. Both she and Gail meet regularly with the children for reading and writing conferences. Gail said, "I have the advantage of working as part of a team (with Donna). So that means that at least two students per day have a reading conference." Gail also finds the "show and tell" period an opportune time to observe the children's oral language development and their levels of confidence as they speak to the whole group. Another opportunity for observation occurs when children read to the class. After a reading conference with Gail or Donna they may sign up to read a book or a passage to the whole class.

Gail takes hundreds of photographs of the children engaged in a variety of activities throughout the year. These are kept in photo albums which are always accessible to the children and their parents. This photographic record now extends back over three years as some children have been in Gail's classroom for that length of time. Gail also videotapes special activities as well as some day to day

activities in the classroom. The videotapes provide her with a different perspective on the children's growth and development, and she sometimes uses segments of the videotape at parent teacher conferences to support her written observations.

A variety of products also provide Gail with additional information about the children in her class. Each child has a writing folder in which current pieces of writing are stored. At the end of each term most of the writing is sent home. A few representative samples are kept as part of an ongoing record of the child's writing development. The children also keep journals which Gail says are really personal diaries. In addition each child has a science journal in which they record what they've observed and what they've learned at the science centre. A science log book is also kept in the science centre and anyone in the class may write down in the log book what they've discovered. As well each child has a "choice time" book in which he/she records what was done during "choice time".

The children also keep a reading response journal in which they record the titles of any books they read and their response to those books. Parents' comments in the home reading files provide additional insights into the child's needs and interests in relation to reading.

In mathematics, the children's "mad minute" sheets provide a record of the children's ability to do written calculations. In addition to "mad minute" the older children

also do some written math work and this again provides another product to which Gail can refer.

Gail describes herself as being "not very organized" about record keeping. Nevertheless, she accumulates a great deal of information about the children in her classroom. This is very evident in her report card which is a detailed narrative about each child. She also includes in her report card a summary of the term's activities. Gail has used this narrative form of report card for several years, each year adding to it or altering it in some way. For example, this year she has included a photo on the front page showing the child engaged in an activity which he/she has particularly enjoyed during that term.

Gail says that the parent teacher conference is about twenty minutes to half an hour in length. She views the conference as an opportunity to receive as well as share information about the child. She says, "We do such a lengthy report that most parents don't have a lot of questions. So you end up finding out a little bit more about what student's interests are and things like that from the home perspective, which often we find is useful."

Next year Gail is hoping to include the child in the parent teacher conference. She has been frustrated with the reporting system because she says, "You get parents who can't read. Their literacy level is such that they can't understand, and they're too embarrassed to tell you. So they actually need to come and see and do a hands on approach

with their child to find out what it is their child is doing."

Gail's Reflections on Teaching in a Multi-age Classroom

As Gail neared the end of her second year in the multi-age program she was convinced that it had many advantages over the single grade classroom. She saw dramatic improvements in children's levels of self esteem. This was particularly evident in the older children who, no matter what their level of ability, were able to be "experts" or helpers in many situations. She said,

> I guess we can't ever tell how good it makes someone feel to be able to help daily with things that they would normally not be able to help with. "I can do that! I can do that!" And if they say that ten times in a day, then they start believing that they can do anything.

Gail also felt that the continuity of the three year program enabled her to build a stronger sense of "family" in her classroom. Instead of dreading the end of the year when she would have to say good-bye to her class, she was able to look forward to planning for the next year with the children who would be remaining in the class. She described the end of her first year in the multi-age program in the following way:

> Last year was wonderful! We had a chance to look forward to getting three quarters of the class back. It made such a difference in planning. "Next year we can do this." You know the kids get into the excitement of the whole thing. And knowing the rules. And knowing that once you have that foundation with the kids, they take it to the next year, and they become teachers themselves

Gail was convinced that children's experiences in the multi-age program had a lasting effect on their self esteem even after they left the program. She said, "It doesn't just end, because we still have kids coming back, and they're giving hugs and wishing happy birthday, and they're remembering things, so it doesn't just end when they leave the room."

Gail found that teaching math the most challenging aspect of the multi-age program. A large part of her math program involved the use of games and math manipulatives, and at first, she had found it difficult to deal with three or at times four levels of development in mathematics. She said,

> Its (math) the most difficult thing to do with all the different levels, and many of the children are not independent workers. You want to do your observations at centre time, and if you make arrangements to teach a math class during centre time, then you're missing out playing with the kids and seeing them play, and at the same time you've got to do that extra group.

When I observed in her classroom during the math period, she had divided her class into three different groups, based on the children's development. She worked with one group, Donna worked with one group and one group worked independently. Each day a different group worked largely on their own, so that Gail and Donna were able to rotate from group to group throughout the week. Gail said, "Quite honestly, I don't know what would happen if you were a single person in a classroom without an instructional assistant. You'd just have to be so organized to teach the hands-on math three different times."

Gail felt that being able to work with Donna had made the transition to the multi-age program much easier for her. She said, "When you have the privilege of working as a team, you talk and you talk and you talk. And we review nightly what went wrong and what hasn't gone wrong and how we can fix it, and we try it and sometimes it just goes." She also felt that she and the other multi-age teachers were beginning to develop a sense of team. They met formally once a month to share ideas and concerns and to plan programming, and Gail found these meetings extremely helpful. She also frequently met with the other multi-age teachers on a less formal basis. As their classes were in close proximity to one another, they would often stop by to chat and end up talking for hours, at the end of the day.

Gail felt that teaching in a multi-age classroom was much the same as teaching in a single grade classroom." She

said, "You have to be very organized. You have to be prepared to go with the flow." One change she did note was in her relationship with the second and third year students. She said, "You have to get used to letting the kids be teachers themselves quite a bit more, and encouraging that." She believed that it was important to get to know the new children coming into the classroom at the beginning of the year, and to give all children opportunities to work together and to develop a sense of family. She said, "You have to talk with the kids and have a lot of large group things at first, and really get to know them, and let them get to know each other, and do crazy things like cook! And it works and its great!"

Final Reflections

Gail's emphasis on developing a sense of "family" in her classroom was a predominate theme throughout our discussions. She strove to create a learning environment where children would feel secure and confident, where differences were accepted and even celebrated. When I observed in her classroom I had a sense that this was a group of children and teachers who were indeed a "family" of friends and learners. This was most evident during the sharing times when the children, along with Gail and Donna, shared their thoughts and feelings, and listened and responded to one another with genuine interest.

The sense of "family" in Gail's classroom was also enhanced by the child-centred nature of the program. With the exception of math, Gail rarely directed activities in an overt way. Although she lays the groundwork for learning through extensive planning and preparation of materials and activities, the children have a strong sense that they are in charge of their own learning. They make choices; they take care of the classroom; and they evaluate their own work in collaboration with Gail and Donna. They even take turns being "choice time teachers" during the centre time. In this classroom everyone was both a learner and a teacher.

Although Gail did not talk about whole language or activity based learning, it was evident that she used both of these approaches in her classroom. The classroom was a rich and interesting learning environment, containing a large classroom library and a wide variety of hands-on materials. The children engaged in activities based largely on their interests and their developmental needs.

Gail believes that schools should provide equality of opportunity for all children, by addressing the needs of the whole child. For her, multi-age, grouping is just one of a range of strategies which she believes can bring us closer to achieving this goal.

CHAPTER 4

Rachel

The Teacher

I first met Rachel (a pseudonym) three years ago when she joined the primary staff in the school where I was teaching. She had moved from a small town to the city, and a mutual friend called me to inquire as to whether or not there were any teaching positions open in our division. I gave Rachel's name to my principal who was planning to create a new combined grade one and two class in order to alleviate the problem of very large classes at the primary level. After meeting with Rachel, the principal hired her to teach the new class.

As the year went on more children moved into the community and were added to Rachel's class. These included children at the grade three level as well as at the one and two levels. By the end of the year Rachel was teaching a multi-age class encompassing three grade levels. The following year the entire primary section was organized into multi-age classrooms.

Rachel's previous teaching experience had been at the kindergarten and grade one levels. When she talked about some of the advantages of multi-age grouping she mentioned that her own school experience had included a number of years in a rural one-room school. She said, "I was familiar with the setting of having more than one age in a classroom.

I had many fond memories of things that I had learned from older students, and that's why integrating the three grades didn't seem that unfamiliar." At the same time she recognized that the one-room school was significantly different from her own multi-age classroom, stating that, "I had o think of it based on teaching styles now rather than when I went through my school experience."

The move to teaching in a multi-age setting had seemed, to Rachel, very natural and it had come at a point in her career when she had been looking for a change. In our conversations she stated that, "I'd really wanted to switch from kindergarten to grade three, originally, but I thought, well here's an opportunity to see the progression from age six to age eight. So it was a personal interest of mine." As a kindergarten/grade one teacher she had become familiar with activity based learning and whole language teaching, and she had begun to think that these approaches could be applied with older children. She also recognized that in a single grade classroom she had been dealing with many different levels of development. The prospect of working with children across a three year age span, therefore did not seem quite so daunting.

The Children

At the time of this study Rachel was in her third year of teaching in the multi-age program. Two boys (who were now in year three) remained from the original group of children

with whom she had started. There were seven 6 year olds, seven 7 year olds, and five 8 year olds in the class when the study was conducted.

In all there were nineteen children in the classroom (ten boys and nine girls). One child had been identified as autistic, and a full time instructional assistant had been assigned to the classroom to work with him. Three students had been identified as ESL (speaking English as second language), and therefore required special programming. The resource teacher worked closely with Rachel and with the instructional assistants who were assigned to work with the children with special programming needs.

The Classroom

Rachel had begun teaching the multi-age program in a small windowless classroom with minimal resources. In our discussions she stated that lack of resources had initially been one of her greatest problems. She said, "I inherited a classroom which had nothing in it except a stack of basal readers." During the first year Rachel was given some money to buy furniture and supplies for her classroom, but this did not nearly meet the requirements of the program. She augmented these materials with purchases from garage sales and with her own personal library of children's books. During the first year at the school she also made extensive use of the public library in order to provide the children with high quality literature on a regular basis.

Since her first year at the school, Rachel had moved to a larger classroom with a window. The classroom which she occupied at the time of the study was approximately 750 square feet in size. It was located at the end of a long corridor and opened directly on to another multi-age classroom. There was a doorway but no door between the two rooms. The walls, which had been erected to divide up what was once an open area, were not sound proof, and one could often hear the voices of children and teachers coming from the adjacent rooms.

Upon entering the room one is immediately struck by the orderliness and the organization of the classroom. A large set of pockets near the door held pamphlets and notes to go home, and forms to go to the office. A set of plastic crates stacked on their sides formed a divider between the entrance and the rest of the room, and provided storage for the children's personal belongings. A child's desk near the door held the children's home reading folders and books which were being returned. On the other side of the doorway was a low storage unit on wheels. Slots on either side of this unit held a variety of materials such as paper, tape, scissors, etc. As Rachel did not have a teacher's desk, she used the top of this storage shelf and the bulletin board above the shelf as a type of work space, a place where she jotted down observations, and where she temporarily kept notes from parents and bulletins from the office.

The rest of the room was clearly divided into centres. These consisted of a sand and water centre, a dramatic play centre, an art centre, a computer centre, a writing centre and a reading centre. Each centre had a corresponding label above it on the wall. Shelves around the periphery of the room held art, math and science materials and games. A variety of plants and a fish tank with tropical fish were located near the window. Throughout the room the materials were organized into plastic baskets of various shapes, sizes and colours. Cardboard boxes covered with mac tac were also used to store and organize materials.

In the centre of the room were four sets of round tables and chairs. A smaller round table was located in the dramatic play area and a rectangular table was situated in the art area. The meeting area at the front of the room was large enough that the children could sit in a group on the rug in front of the teacher in order to hear a story or participate in a discussion. The bulletin board in this area contained a calendar and a job chart. There was also a number line on which the children kept track of the number of days they had been at school.

There were many charts, lists, and signs on the walls which provided a sense of how the classroom functioned on a day-to-day basis. These included the job chart which outlined each person's job for the day. Jobs included such things as watering the plants, taking attendance and tidying the shelves. I noted that Rachel's name and the name of her

teaching assistant were also included on the job chart. There was also a centres chart on which the children indicated which centres they planned to go to by placing a ticket in their name pocket. An outline of the morning routine and a weekly timetable had also been posted in the classroom. A problem solving action plan outlining six steps for resolving conflicts was taped on the blackboard at the front of the room. Directions for writer's workshop, daily edit, and journal writing were displayed in the writing center. At the computer centre, directions were posted on how to use the computer.

In addition to the charts which gave directions, there were a variety of commercially made charts including alphabet charts, number charts and a color chart. The children's names and the names of adults in the school with whom the children came in contact (i.e. principal, secretary, resource teacher, etc.) were also listed on a chart.

The children's work was displayed in various places around the room and in the hallway outside the classroom. The displays took a variety of forms. One bulletin board displayed circular pictures depicting the life cycles of fish, frogs and snakes. In another area the children had made a display related to the story of Jack and the Beanstalk. This display included some of the children's writing, a giant painted beanstalk and some of the characters from the story. A table near the door held

geranium plants which the children were growing from cuttings.

Upon walking into the room one immediately had a sense that the environment had been carefully planned to allow children to be independent, and to encourage them to take responsibility for their own learning. This was confirmed as the children begin to arrive and participate in the daily routines.

A Day in the Life of the Classroom

My observation in Rachel's classroom took place at the end of May. We both arrived in the classroom at 8:30 a.m.. She explained that she usually did not come to school before 8:30 a.m., but she stays and works till five or six o'clock most evenings. As a former staff member, I know that Rachel also frequently worked in the school on weekends. During her first year at the school she was almost invariably at the school whenever I came on Saturdays or Sundays to do my own preparation and catch up. She would often be accompanied by her husband, who would be enlisted to help prepare bulletin boards or construct some much needed item for the classroom.

8:30 a.m.

When she arrives, Rachel begins putting writing folders and name tags on the table. She explains that the instructional assistant who is normally in her classroom would be away sick that day, and that there will be a

substitute in her place. The name tags are for the benefit of the substitute instructional assistant. As we are talking, the substitute, Mrs. W. (a pseudonym), arrives. She has previously worked in Rachel's classroom and is familiar with the daily routine. The instructional assistant for whom she is substituting works with the special needs child in the classroom. (The special needs child works with the other children during most activities. Mrs. W.'s role is to assist him when needed, and to monitor his behaviour.)

8:55 a.m.

The children begin to enter the classroom, a few at a time. A parent stops by and speaks briefly to Rachel about helping with an upcoming field trip. As the children enter, they bring their home reading folders and place them in a designated box near the door. They sit at the tables, put on their name tags, and chat quietly as they wait for the others to join them. Rachel reminds them that there are jobs to be done and two children change the dates on the calendar. Two others feed the fish.

O'Canada comes over the intercom and the children stand and sing along. O'Canada is followed by announcements from the office. Rachel then says, "Good morning children." She introduces me to the class and I briefly explain why I am there. Mrs. W., the substitute instructional assistant, is then introduced to the children. Her name is difficult to pronounce and Rachel has the children practice saying it

several times until they were able to pronounce it correctly. Rachel asks if anyone is buying lunch. When no one responds, she asks the children to go the meeting area.

The children sit on the rug at the front of the room, and Rachel announces that they are going to have "buddy reading" first. She organizes the children into pairs by calling one child at a time to choose a name from a jar. That child then reads with the person whose name he/she chooses. They quickly take their books from their buddy reading folders and from the book shelves and sit at various places around the room.

While the children are organizing for buddy reading, the resource teacher comes into the room and briefly explains to Mrs. W. what she will be required to do during the day. She leaves some materials for a matching activity and Mrs. W. begins to prepare these materials for use later in the morning.

As the children settle down and begin to read, Rachel marks off the attendance sheet and asks a child to take it to the office. She then circulates about the room listening to children read. She periodically jots down a few notes in a binder which she keeps at her work station. The binder contains a page for each child. When a child selects a book, Rachel places the borrower's card in a pocket on that child's page. In this way she is able to keep track of which books children have read. She explains that some children

have also begun to keep their own reading records in their take-home folders. This is an optional exercise, and she explains that knowing who makes this choice helps her to assess which children are becoming more self-motivated, organized and independent.

She also explains to me that "buddy reading" has evolved over the course of the school year. At the beginning of the year, her students read with students from a grade five class. Later when they began buddy reading within the class, Rachel assigned partners. Now in the last term, the routine and the expectations are well enough established, that children are assigned randomly to read with each other.

During this time the children appear to be very absorbed in their reading. They listen attentively to one another and one has a sense that they are enjoying the books. Rachel moves around the classroom listening to different pairs read and occasionally making brief notes. Towards the end of this period, Rachel goes to the blackboard where she begins writing groups of names.

9:30 a.m.

Rachel says, "Okay children, we're at the end of buddy reading time. You can record your book if you wish. Please come to the meeting area." The children put their books away and gradually move over to the meeting area where they sit on the rug in front of Rachel.

Rachel invites a child to read his poster about the life cycle of a frog to the class. She holds up the poster and the child explains it to the rest of the class. Rachel periodically stops him to ask a question. When he is finished, she takes a few minutes to talk to the class about cycles "which go in circles" versus stages "which are hierarchical".

She then holds up several other posters and talks about the life cycles which have been depicted on them. At one point she says to the class, "I'm wanting to see what you've done with this." As she looks through the pile of posters, she says, "Oh, this looks interesting," and she calls up a second child to explain his poster. Following his presentation, several other children are invited to talk about their posters. Most of the posters are about fish, frogs or snakes. At the end of this sharing session, Rachel discusses the fact that some children had not yet completed their posters, and she suggests some possible times when they might do so.

At this point, Rachel sends four children to the library corner to work with Mrs. W. and the resource teacher. She then announces to the rest of the class, "We're going to work on group projects this morning." Rachel later explains to me that these projects evolved following a field trip to the Fort Whyte Nature Centre. She hands out books to the various groups whose names are written on the blackboard and they go to their tables. One child, whose group is

studying birds, suggests that he could go out on the playground to look at some birds. Rachel thinks that was is a good idea, but says that she does not have an adult to go out with him this morning. She suggests that the whole class could go out a little early for recess, and everyone could help him look for birds. He seems satisfied with this suggestion and he joins his group.

In the library corner the resource teacher reads a book about the human body to her group of four children. When she finishes, the group moves to a table where they work on an activity which involves cutting and matching body part shapes to shapes on a paper.

At 10:00 a.m. a second instructional assistant comes into the classroom and quietly and unobtrusively takes two children from the resource teacher's group for ESL instruction out of the classroom.

As the other children begin to work on their projects, Rachel circulates around the room meeting with children and discussing their work. The topics which the groups have chosen include plants, fish, birds and insects. The groups are heterogeneous. Some groups have as many as four children, others as few as two. Rachel explains that the children can join any group or they can work alone. (One child did, in fact work on a project by himself.) She also explains that the children have had a variety of experiences working together throughout the year, particularly at centre

time, and they are now able to make their own decisions with regard to which group they will join.

The children are engaged in a variety of activities. Some are researching their topic by reading books. Others are writing and illustrating their own books. One group of children is planting bean seeds as part of their study of plants. Another group which has been studying insects has created a large three dimensional display of insects, and now they are making a book about insects.

10:20 a.m.

Rachel announces, "You have five minutes to finish off and tidy up." Some children are still quite absorbed in their projects and they are slow to begin putting away their materials. After a few minutes, Rachel says, "Its good to see the blue group tidying up." She then adds, "Please come to your group tables." Gradually the children return to the tables where they had been seated earlier in the morning.

She says, "We're going out for recess five minutes early to look for birds." She then asks, "Where on the playground do you think we might find some birds?" The consensus is that most of the birds are by the kindergarten door where there is a tree. Rachel leads the class through the school to the kindergarten door. Most children elect to play on the equipment, but Rachel and a small group of children spend a few minutes walking around the playground looking for birds. At 10:30 the buzzer rings and the

children from other classes begin to pour out on to the playground. Rachel's small group concludes that most of the birds will be frightened away by all of the children at recess time, and that they will need continue their bird-watching some other time. Rachel leaves the playground and goes to the staff room for coffee.

10:50 a.m.

The buzzer rings, signaling the end of recess, and Rachel returns to the classroom. As the children file back, they sit on the rug in the meeting area. Several children stop and talk to Rachel about a problem related to sharing of the soccer ball at recess. When Rachel joins the group in the meeting area, she asks for further input regarding the problem with the soccer ball. A number of children share their concerns, and Rachel says, "This is more serious than I thought." They spend a few minutes discussing this matter further and finally agree on a course of action for the next recess. Rachel does not impose her ideas about how to resolve this dispute, but instead solicits ideas from the children.

When the discussion about the soccer has ended, Rachel says, "We usually have a story after recess." She explains, that today, however, she does not plan to read to the children as she wants to take a few minutes to discuss the book they had finished reading the day before. She begins by saying, "By now you should be very good at mysteries." She

talks about how the book had ended and she solicits the children's responses to the book.

When the discussion has ended, Rachel announces that they will be working on fractions today. She begins by asking, "Who can tell me what a fraction is?" This question generates various answers (1/2, 1/4, etc.), and considerable discussion. Eventually, with some prompting from Rachel, the group agrees on a definition.

Rachel introduces three activities that the children will be working on during the math period. The children are familiar with two of the activities. One activity involves dividing circles into sections of equal size, cutting them out, reconstructing the circle and pasting the reconstructed circle into a book. In the second activity the children are required to colour the appropriate portions of a circle to demonstrate their understanding of various fractions.

The third activity is new and Rachel begins by explaining the problem and asking, "How are we going to do this activity?" She then invites the children to provide answers to a sample problem which she puts on the board. This activity involves multiplying whole numbers by fractions (e.g. 1/2 of 4). The children are required to draw rings around groups of objects within a configuration of objects, and then write down their answer to the problem.

All three activities involve the manipulation of materials at a concrete or semi-concrete level prior to recording pictorially or in written form the response to the

problem. All three activities are also open-ended in that many of the problems have more than one solution.

At the end of this discussion, Rachel says, "You've been a good audience. Let's get down to work." She passes out booklets to the children, and as she is doing so, quickly reviews with each child his/her progress. The booklets range from five to eight pages in length, with the longer booklets containing the third activity (multiplying whole numbers by fractions). The children appear to be grouped heterogeneously in terms of age and the level of difficulty of the task. They take with them to their tables a variety of materials, such as attribute blocks and tracers, to assist them in working through the problems.

Rachel invites two children to work with her on the rug in the meeting area. She involves them in the manipulation of some paper shapes, and in doing so, reviews with them some of the information about fractions that had earlier been discussed. There is a quiet hum in the classroom as the children discuss with one another the problems on which they are working.

11:40 a.m.

Rachel announces that its tidy-up time. The children put their work away and line up by the door. Before they leave, Rachel reminds them that tomorrow will be the bake sale, and that they need to remind their parents to send baked items to school. (The purpose of the bake sale is to

raise money to attend the Children's Festival.) She also reminds them that they will be going to gym and music after lunch. The buzzer rings at 11:45 and the children leave for lunch.

11:45 a.m.

Rachel takes a few minutes to speak to Mrs. W. about one child's behaviour during the morning and she suggests some strategies for the afternoon. She then hurries away, as she has a meeting with the other multi-age teachers during the lunch hour.

12:55

The children come into the classroom long enough for Rachel to take attendance and then they leave for gym and music. From 1:00 to 2:00 Rachel meets with the principal for her weekly review meeting.

2:00 p.m.

Rachel is still in a meeting and not in the classroom when the children return from the gym. The substitute instructional assistant arrives with the children, but she does not give them any directions. The children simply take out their journals and begin to write. They chat quietly amongst themselves as they are writing. After a few minutes, Rachel returns and announces, "I'll give you another five minutes to finish journals." As the children are working,

Rachel gathers up the fraction booklets on which they had worked in the morning and she passes out subtraction booklets to all of the children. At one point she stops and asks a child to read his journal, because she doesn't understand something he has written. She reminds all of the children to read their journal entries before putting them away.

Rachel explains that the children write in their journals on Mondays, Wednesdays, and Fridays. She then takes the journals home and writes a response to each child. The journals are strictly a personal form of writing in which children may write on any topic they choose. Most children use the journal as a kind of personal diary. Rachel directs my attention to one child who has used his journal to explore different genres of writing - poetry, narrative, etc. Many stages of development are reflected in the children's writing. Some children write only a sentence or two in unlined booklets. Others are writing several paragraphs in lined scribblers.

As they finish writing in their journals, the children begin to work on their subtraction booklets. Rachel explains to me that the younger children are very excited about the subtraction booklets, as these are the first commercial math papers which they have done this year.

2:18 p.m.

Rachel asks the children to get ready for recess. They leave their work and line up by the door. As they are waiting for the buzzer to ring, she invites them to read the poem on the bulletin board. They read along with her in unison. At 2:20 the buzzer rings and the children leave for recess.

During recess, Rachel goes to the staff room for coffee. At 2:35 the buzzer rings signaling the end of recess. When Rachel and the children return to the classroom, work continues on the journals and on the subtraction booklets. There are several types of subtraction booklets which reflect the children's developmental levels. The problems range from single digit subtraction to double digit subtraction with borrowing. Some children use number lines to solve their subtraction problems.

After recess, the children are quite talkative, and as the noise level rises, Rachel reminds them that, "This should be a quiet time when you are thinking about the math problems in front of you." One child who has returned from recess in tears comes to Rachel and says that she has a sore finger and cannot write. Rachel looks at the finger (which has no visible sign of injury) and suggests to the child that she just read a book instead. At one point Rachel reminds a child, who has left his table and is chatting with another group of children, to return to his own table. Gradually the group settles down and there is a quiet buzz

in the classroom as the children become absorbed in their work.

As the children are working, Rachel gathers together some of the home reading folders and begins placing them on the tables. She announces that, "Children with home reading folders on their tables may choose a book." About half of the children quietly get up and select books from the library corner. When they have made their selection, they place their books and folders in their boxes near the door.

Rachel directs the children to tidy up and come to the meeting area. The children quickly comply and sit on the rug in front of her. She holds up a book and explains that one of the children in the class has asked her to read this book which is part of a series. Evidently the children have read and enjoyed other books from the same series. Before beginning to read, Rachel points out the name of the author and discusses the fact that this is a chapter book. She also talks about the table of contents and the number of pages in the book.

She reads through the first chapter of the book, periodically stopping to ask questions and discuss various aspects of the story. At one point she says, "The children in this story like to get up early." Then she asks, "How many of you like to get up early?" An animated discussion follows in which several of the children share their opinions.

Most of the children appear to be quite engaged in the story and the discussion. They sit quietly while Rachel is reading, and they remember to raise their hands when they wish to say something. The child with the sore finger is still crying, and at Rachel's suggestion, she goes to the library corner and lies down on the couch.

While the story is being read, I'm aware of the noise level in the adjacent classroom. One can hear the buzz of children talking. Rachel and the children in her class, however, do not seem to be distracted by this noise.

When the story is over, Rachel announces, "We're going to work on our research project about snakes. She explains to me that this project has developed as a result of several books which she has recently read to the class about snakes. She begins by briefly reviewing with the children how to organize their research books. In her discussion, she refers to a Table of Contents chart which is on the blackboard.

Following a specified format, each child is making a book about snakes. First, they must copy the Table of Contents chart from the board. Then they write a rough draft and a final draft of their introduction. Finally, they develop the main body of the book based on an organizational chart which Rachel has placed on each table. The organizational charts contain categories such as habitat, food and young which must be included in the book.

Rachel distributes the partially finished books to the children and they begin to work. They are at various stages

in their work. Some are still copying the Table of Contents. Others have already started on the main body of their books and are using a variety of reference books about snakes. As with the activities observed earlier in the day, a wide range of development is represented in the children's work. Some children produce a limited amount of text accompanied by relatively simple drawings. Others add a great deal of detail into both their writing and drawing. Everyone seems to be very clear about what it is that he or she is to do. There is again a quiet hum in the classroom as the children work collaboratively, helping each other with spelling and drawing and finding information.

One group of three children who were away when the last book on snakes was read, takes the book into the hallway where they sit on the floor and read together.

Rachel goes over to the couch and inquires of the child with the sore finger, "How's your finger?" The child responds that, "It still hurts." Rachel says, "Why don't you come and show me what you did the last time (in her research book), and we'll plan what your going to do the next time." The child agrees, and as she sits and reviews her book with Rachel, she seems to forget her sore finger.

3:25 a.m.

Rachel says, "Let's tidy up." As the children begin to put their work away, she reminds them to leave their name tags on the tables. When books, pencils and crayons are put

away, the children also place their chairs on the tables. Rachel invites them to come to the meeting area stating, "We have a few things to talk about, and maybe we'll have time to sing a song."

She leads them in a rap-style chant. When they've finished, she draws their attention to a note on the board which says "Bake Sale Tomorrow". She reminds the children to remind their parents to send their baking in the morning. When the buzzer rings at 3:30 Rachel says, "Off you go now."

The children trickle out of the classroom, some taking home reading folders and knapsacks on their way. One child remains behind to show Rachel a doll which she produces from her knapsack. Rachel examines the doll and chats for a few minutes with the child.

When all of the children have left Rachel remains in the classroom, tidying up, making notes on some of the day's activities and planning and preparing for the next day. We chat briefly and she clarifies some of the day's activities for me. When I leave at 4:00 p.m. she is till the classroom.

Record Keeping and Evaluation

It was evident during my day in Rachel's classroom that she had a variety of strategies for keeping track of children's development, and that she approached the task of record keeping and evaluation in a very systematic way. We made arrangements to meet in early July, as she planned to

spend some time working in her classroom before leaving on holidays.

In our discussion Rachel made it clear that her record keeping system was "something that's still evolving." She said, "I guess I'm always changing my methods. I've used many different things over the last few years, and I'm sure I'll change them again in the fall."

She began our discussion by talking about some of the advantages of evaluation in a multi-age classroom. She said, "In September I know two thirds of my class. That's a real advantage for me as a teacher. I don't need to observe the same skills that I would need to in a single age class." Rachel also stated that,

> ..its interesting to see how a child responds to new children coming into the classroom. I can't always predict who will work well with the new child entering, and who will not work well with that student. So I like to observe older and younger children together, keeping in mind that I know the older student much better than the younger student.

One of the record keeping tools which Rachel uses is a general observation sheet. The sheet is simply divide into six sections, and she uses one section for each observation she does on each child. This sheet is used mainly at activity time, but observations can also be recorded on it throughout the day. Rachel regularly records her own observations of children, and she also encourages other

adults who come into the classroom to jot down their observations. "So its not only myself collecting information. Its the instructional assistants, the resource teachers, anybody in the school." As sheets are completed, Rachel cuts them apart and tapes them into a binder with the children's names.

Another source of general information that Rachel uses is the children's plan books. At the end of activity time each day, the children record in their plan books what they've done during that period. She says that,

> Over a period of time my plan books help me a lot in that its the child's record of what they've done. I also chart those (books) to see which activities they choose, and whom they're interacting with. Are they leading in that situation? Are they changing their interest over a period of time or are they staying in the same areas.

Rachel also involves the children in a self evaluation exercise by doing a self-report with them at the beginning of the year. She says,

> .... you know, children are very honest when they evaluate themselves, and when you get them to reflect on what they've been doing. And also I made them aware that evaluation is a way of keeping track of things that they need to work on as well as things that we've accomplished. But its okay if you don't do everything perfectly as long as you're growing and learning.

She keeps her observations in a binder which has a section for each child. Each section contains a selection of coloured loose leaf pages. Each colour represents a different focus for evaluation. For example, blue might represent general observations, pink some aspect of reading development, and yellow the child's development of mathematical concepts.

To assess where children are in their reading development, Rachel observes them in a variety of reading situations - reading alone, reading with a classmate, reading with an older student and reading to the whole class (Reader's Chair). She also does a reading knowledge interview with each child at the beginning of the year and she meets regularly with children for reading conferences. She records her observations on post-it notes which are placed on a class grid in a file folder. She says, "When everybody has a note, I know I've gone through the (observation) cycle once." The pages in the binder which have been designated for observations of "buddy reading", also contain library card pockets. Rachel places the borrower's card from the books, which the children plan to read to their "buddy", in this pocket. In this way she is able to keep track of which books the children are selecting for "buddy reading". Some children also keep a reading log and this is an additional source of information about their reading development.

Rachel also uses the post-it note system for keeping track of what children are doing in mathematics. She says, "I observe them using math manipulatives as they're working in small groups. And then its strictly play. I record their language. I don't interact with them when I make those observations, even though its hard not to do that." Later in the year she can also refer to their written and pictorial representations in mathematics, such as the work they were doing in fractions and subtraction on the day that I observed in the classroom.

To evaluate the children's writing development, Rachel refers to the variety of written products which are available in the classroom. These written products include samples of work from the children's writing folders, their journals and plan books, and any written material derived from project work. Rachel also involves the children in assessing their own writing development by having them record their own observations on comment sheets which are placed in their writing folders.

Each child in Rachel's classroom has a large folder in which he/she stores all of his/her work for the year. They also keep scrapbooks which are stored in the folders. At the end of each term the children staple representative samples of their work into the scrapbook. Rachel uses this process of selecting work samples as another type of self evaluation exercise. She says,

> The first term I will organize the scrapbook for the child, so they get a sense of what it is to collect information and how we display it for others. And then after that they will be responsible for putting information in the scrapbook, which was quite interesting because you get to see who really knows how to organize information. With the older children I wanted it in chronological sequence. So, what did you do first and so on? So they had to look at dates and try to organize it. Some children would have everything strewn all over the floor all around them. And others were busy.... They had laid everything out and collected it in a pile and inserted it in order. And then there were others who just couldn't manage and you had to give them a hand, because they didn't know where to begin.

The children share their scrapbooks and their folders with their parents during the student/parent/teacher conference session which takes place each term. At the end of the year, the children take their folders and scrapbooks home. Rachel says that this is a proud moment for each child when they finally carry their big folder out the door.

Rachel uses a variety of evaluation guides as references in order to make sense of the considerable body of data which she collects about each child. One of guides which she uses is taken from the British Columbia Primary Program Document. In commenting about this guide, she says,

"I always use that guide. I keep everything together in one place and when its time to evaluate things, I can just open it up and use it." Another guide which she uses is the Primary Language Arts Document from the London Board of Education. She says, "Its a continuum and its just great because it gives you all the stages and the things to look for in those stages." Rachel also likes the London Board Document because it gives suggestions about the kind of samples to put into a child's portfolio. In addition, Rachel uses material from a book called The Child-Centered Activity Based Classroom by Susan Schwartz and Mindy Pollishuke.

Over the three years I have known Rachel she has struggled with the development of a report card which would adequately inform parents and at the same time reflect the philosophy and goals of the multi-age program. The principal had allowed each teacher to develop his/her own report card within the divisional guidelines for reporting. Her first report card was a narrative report with headings for each area of development (i.e. social emotional, language development, etc.). Rachel said that this report didn't work for her at all. She says of herself, "I'm not a person who has a natural ability to write so I need something to generate the points I want to cover."

She has since developed a report which, although divided into similar sections as the first, gives more information about her criteria for evaluation. On the left

hand side of the page she outlines those aspects of development which she considers in the evaluation process. On the right hand side of the page she comments, in a narrative format, on the child's development in relation to those points (See appendix). When I asked her if she commented on every single point, she said, "Oh no. Its different for different children." Rachel uses the computer to write her reports, and by adjusting the lines she is able to get a considerable amount of information on each report card.

During the first year, Rachel sent home a comment sheet for parents along with the report card. She said,

> When the multi-age program began in our school, I sensed that there were parents who had a lot of concerns about this. And I thought this is one way for them to respond to it on a term basis, about concerns they would have about their child or the program. And they could voice these concerns at an appropriate time. They could write this down before they came to the interview, so that then we could discuss it. That was another reason for including that. I always like to encourage them to interact with me.

Rachel was disappointed with the response rate for the comment sheet. She said, "Even though both parties (parent and child) would sign it, there would seldom be a comment." As a result she no longer included the comment sheet with the report card.

She does, however, include a cover letter outlining the themes and activities on which the children have worked during the term (See appendix). In previous years she had sent letters home on a monthly basis. However, she found this practice very time consuming and difficult to keep up with on a regular basis, and she decided to simply send one letter at the end of each term (See appendix).

The issue of grade assignment was one which Rachel said was of particular concern to parents. On the report card, Rachel had tried to deal with this concern by indicating the child's year in the program rather than the grade. If, for example, a parent asked whether his/her child was in grade two, Rachel would respond by saying,

> Well he's not in grade two because all of the children in our classroom work on the same theme. But, yes we cover grade two material, and with your child being in the second year, if you want to say he's in grade two, that's fine, but in my classroom he's in the second year of the program. And he may be doing grade three things this year as far as content goes.

This year Rachel had changed the format of parent teacher conferences to include the child in the conference. During the first set of conferences she had tried having three sets of parents and children in the classroom at the same time. She found this difficult to manage and in the second term she arranged for the children to review their

folder of work with their parents prior to meeting with her. She said,

> And during that time they told their parents what they had done that term. It got to a point where I would give them their folder and they could go through that while I was finishing my interview (with the previous student and parents), because it takes children a long time to share something. And they know a lot about what they've done with that product. Having the child at the interview was great! And if I needed to speak to the parents privately, I would just ask the child to wait in the hall.

Rachel felt that student involvement in parent teacher conferences had been very successful. She said, "I was really pleased to see how well the students could express themselves, especially the older children. They really gave their parents a sense of what knowledge they have about their work."

Rachel's Reflections on Teaching in a Multi-age Classroom

Rachel felt that her experience as a kindergarten teacher had been a distinct asset when she began teaching in the multi-age program. As a kindergarten teacher she had learned how to incorporate a wide range of activities into her program. She felt that, by providing a variety of activities for students in the multi-age program, she was able to observe them in many different situations and thus

get to know them better. She said, "That (activity time) gives me a sense of what the child's interests are, how that child interacts, what kind of learning activities they like to choose." She was also convinced that an activity based program allowed her to plan more cooperative learning activities and this, in turn, gave students more opportunities to get to know one another and work collaboratively.

As part of a school initiative Rachel had become very interested in learning styles. She felt that observing children in a variety of activities at the beginning of the year gave her a better sense of what that child's preferred learning style might be. She said,

> There's more than one way to do a follow-up to a story you've enjoyed. And you see some children are always choosing the dramatic things, and some children like to choose the writing and retelling, and other children like to make puppets and models. So that was one of the things I found starting out; you had to give a lot of broad opportunities for them to express themselves in broad ways. You know, don't confine it too much.

Later in the year Rachel structures her activity time so that it becomes more focused. This was evident when I observed in May. The children made choices, but within a fairly limited range. Rachel said, "We sort of go through a cycle. We limit the choices so that now they're made to choose things within the frame of fairy tales, for example."

Having been in Rachel's class earlier in the year, I knew that she did indeed have a much broader range of choices during that first part of the school year.

When she talked about the challenges of teaching in a multi-age program, she said, "Math for one is very difficult together because it is a progression. I find I've always had all three levels on my own because I haven't had an instructional assistant in the classroom to help me." (Although Rachel does, in fact, have an instructional assistant, the requirements of the special needs student are such that the I.A is often not able to work with other students during the math period.)

Rachel had taken a math course during the previous summer and found this quite helpful. She said, "It gave a lot of good suggestions, quick activities that would include all different age levels. So you could pull the group together as a whole, and then work from there and that was very helpful." Rachel had also begun to work with one of the other multi-age teachers to develop kits related to particular concepts in math. The kits were designed to provide a range of activities related to different topics in mathematics.

Although Rachel had encountered challenges in the program, she felt that there were many advantages for children in a multi-age classroom. She believed that there were more opportunities for children to be successful in the multi-age program than in single grade classes. She said,

> And then, looking at the students that I did receive at this school, I thought it was great for them because I had many children who were not functioning at a grade level, but were at different developmental levels and had different supports in their environment at home, and this really allowed them to be successful, which is ultimately what I want children to be in school.

She pointed out that the multi-age program offered many opportunities for children to nurture and to be helpers. Children in the program also came to expect that they would not all be doing the same things at the same time, and consequently there was no one standard by which they measured themselves. In describing how she integrates new children into the class, Rachel said,

> So we had a talk about that, how all of us learn in different ways, and we all do things in our own way, and it was okay, for example, for them to write things the way they thought it should look rather than trying to spell everything perfectly. And then after they realize that you're accepting of anything, they just tend to take off.

Rachel felt that an accepting, non-competitive learning environment allowed children to experience a great deal of success, thereby enhancing their self esteem.

She also spoke about the advantage of getting to know children over a three year period. At the beginning of the year she already knew a great deal about two thirds of her

class. She also felt that the three year time span allowed her to establish a stronger relationship with parents. She said,

> I've had very good parental support from the children who are in their third year in the classroom. So that's also a big advantage. You don't have to get to know as many new faces. You have the support there of the people that you're familiar with, as you get to know the people who are entering. And I think its easier for parents, too, because they tend to approach me about concerns a little more readily.

Final Reflections

If I had to choose a phrase to describe Rachel as a teacher, it would be "quietly confident". She has about her an air of calm and self assurance which is reflected in the way she organizes her classroom and the way in which she interacts with children. There is a certain deliberateness to everything she does. Her style of teaching is characterized by thoughtful planning based on firm convictions about how children learn. Her beliefs about learning are congruent with what she does in her classroom.

In the relaxed and easy going atmosphere of Rachel's classroom it is easy to forget that this is a class with some especially challenging needs. Rachel used multi-age grouping as a one of many strategies to meet the needs of all the children in her classroom. These strategies included

whole language and activity based learning, cooperative learning, theme based planning, and a sensitivity to children's learning styles.

Rachel views herself as a learner. She regularly reads professional books and journals and attends workshops, and her program is always changing to reflect her new understandings. She has involved herself in the life of the school by serving on committees and supporting school activities. She meets regularly with the other multi-age teachers and as a group they have begun to look at ways they can support one another.

When Rachel spoke about her choice to teach in the multi-age program, she said, "I saw many possibilities." It is this attitude which I think best characterizes her as a teacher.

CHAPTER 5

Amy

The Teacher

I first met Amy (a pseudonym) when I visited her classroom about ten years ago. Although I do not remember all the details of my first visit, some aspects of the classroom and Amy's teaching style still stand out in my mind: the rich and interesting learning environment ; Amy's respect for children and their choices; her energy and her enthusiasm for teaching.

In the ten years I have known Amy, she has been a strong proponent of activity based, whole language teaching and learning. In addition to opening her classroom doors to visitors, she has taken a leadership role in her school and her division by giving inservices, serving on divisional committees, and supporting early years professional organizations.

Before coming to the multi-age program, Amy taught grade one for a number of years. Prior to that, she taught nursery, kindergarten, and grade three. She also taught in a preprimary program, which is a transitional class between kindergarten and grade one. In speaking about her experience in the preprimary program, she said, "It was kind of a contradiction to what we're doing (in the multi-age program), but it helped me to come to an understanding of what we're doing now."

Amy came to the multi-age program in its second year when a fifth classroom was being added to the program. She said "I had always taught in the suburbs, and I was really looking for a change that offered the multi-age component, as well as teaching in an entirely different community." She felt that multi-age grouping was more compatible with her own beliefs about how children learn. She said, ".... we lock-step children into grades, which is a complete contradiction to what we know about how children develop. So for me, I thought that (multi-age grouping) was a perfect answer to that dilemma."

The Children

Amy's class had been created at the beginning of the school year in order to deal with increased enrollment in the school. Her students came to her with a variety of school experiences. Some were drawn from other multi-age classrooms in the school. Some of the six and seven year olds had moved up from the previous year's kindergarten class. Some students had moved into the community over the summer or during the school year and had been placed in Amy's class.

There were eleven girls and eight boys in the classroom representing a total of nineteen children. Of the nineteen, there were seven six year olds, seven year olds, and five eight year olds. Three students were identified as ESL (speaking English as a second language), and therefore

received special programming assistance through the resource program. One child was multiply handicapped, and a full time instructional assistant had been assigned to work with her in the classroom. Another child with behavioural problems also received special programming assistance through the resource program. Several other students in Amy's class were also involved both formally and informally with the resource teacher and/or the Child Guidance Clinic.

The Classroom

Amy's classroom, is located within a complex of rooms which was once an open area. Thin walls divided the rooms and none of the classrooms had doors. The whole area had a kind of make-shift air about it. Amy's classroom was located at a corner where two hallways met. All of the other multi-age classes had to pass by Amy's class in order to go in and out of the school and to go to gym and music classes. As there was no door at the entrance to her classroom, a considerable amount of noise came from the two hallways. To overcome this problem, Amy had placed a large bookshelf just inside the doorway to her classroom. The bookshelf acted as a visual barrier and also cut down on some of the traffic noise which emanated from the hallway.

The classroom, which had no windows, was somewhat smaller than a regular classroom. The floor was covered with an orange/rust coloured carpet. Built-in cupboards extended across the front and the back of the room. Around the

periphery of the room there were a variety of moveable shelving units and a number of small tables and desks. In the centre of the room were five round tables, each seating four children. There were two small blackboards, one on the front wall and one on a side wall. The rest of the walls were covered with bulletin boards.

The periphery of the classroom was divided into various centres. Behind the large shelf, which was near the door, was a reading corner. Several smaller shelves and book stands helped to define this area and close it off from the rest of the classroom. It contained a large and comfortable easy chair and a large selection of books. Some books stood alone on the shelves. Others were grouped in brightly coloured plastic baskets.

Just outside the reading centre was a listening centre with a tape recorder, head phones and books. Next to the listening centre two desks contained pots, soil, seeds and reference books for a planting activity. One corner at the front of the room was the meeting area. It was just large enough for the children to sit in a group on the carpet for stories and discussions. On the bulletin board in this area were a variety of record keeping activities related to the calendar. These included a calendar and numbers, the days of the week, a tally sheet, and a number line which indicated the number of days the children had been at school.

Also posted on the bulletin board at the front of the room was a list of the activities which were currently

available at centre time. In all, nineteen activities were listed. This list changed as the centres and activities in the classroom changed. The shelves around the meeting area contained construction toys and games. Writing folders and project books were stored on top of the counter in this area.

In the opposite corner at the front of the room, a variety of art materials were stored on the shelves. These included paint, glue, plasticene, yarn, fabric and junk materials. A small table in this area served as a work surface. Beside the art centre was a house centre with a small table and chairs, dolls, dishes, and dress-up clothes. A mirror hung on the wall in this centre. On the other side of the house centre was a moveable cupboard. Amy used the top of this cupboard as both a work surface and a storage area for pens, tape and markers. The computer was located on the other side of this cupboard. Along the wall near the computer, were shelves containing the math materials. These materials which were stored in plastic bins, included items such as beads, unifix cubes, pegboards and junk materials.

A water table and sand table were located in the corner beside the math shelves. A large piece of blue plastic had been placed on the floor in this area in order to protect the rug. At the back of the room a variety of science materials were displayed along the top of the counter. These included rocks, shells, pieces of wood, a dried sunflower

and a wasps' nest. Above the counter, pictures of animals and birds were displayed on the bulletin board.

My first impression of the classroom was that it was a rich and interesting environment where children were engaged in a wide variety of activities. It was evident that a great deal of thought and planning had gone into the organization of the space and materials. There was an air of "work in progress" about this room. One centre sometimes flowed into the next and it was obvious that the materials in the various centres were frequently used.

Virtually every inch of wall space was covered with the children's art work and writing, and with charts and posters related to their projects. Two charts at the front of the room contained the results of a brainstorming activity which Amy had conducted at the beginning of the year. The first chart was entitled, "Where we can go to find out about things". This list included items such as "watching TV.", "observing things", and "doing things." The second chart was entitled "How we show what we've learned." This second chart included items such as "drawing a picture", "doing a puppet show" and "making a model". Amy later explained to me that she felt it was important for children to realize that information doesn't just come from books, but from many sources, and that there are many different ways for children to represent what they know, other than just writing. It was clear that she had organized the learning environment to reflect this belief.

A Day in the Life of the Classroom

The morning and afternoon observations of Amy's classroom took place on separate days. Amy felt that these two half days were typical of a single day in her classroom.

I arrive in Amy's classroom at about 8:40 and we chat briefly before the children arrive. Amy has been in the school for about half an hour. She explains that she likes to arrive early enough to meet with other teachers in the staff room for coffee, before beginning work in her classroom.

8:45 a.m.

The children begin to enter the classroom, a few at a time. Most stop and speak briefly to Amy. Some return permission slips for a field trip which is planned for the following week. All of the children have home reading folders which they take to their tables as they sit down. Some children bring papers on which there is a calendar and a weather chart, and they begin to mark in the date and record the weather. Other children simply pick up a blank piece of paper and begin to colour a picture with the crayons and coloured pencils which are on each table.

At this point Nancy (a pseudonym), the instructional assistant, enters the room. She has been assigned to work with the special needs child in the classroom. Although this

child is integrated into most classroom activities, she frequently requires adult support. At times Nancy also works alone with her on activities designed to specifically address her needs.

At one point, a mother comes into the classroom with her child. She speaks very little English, and appears to be somewhat confused about the upcoming field trip. Amy tries to communicate with her in a number of ways: she speaks slowly and directly to her; she also tries to communicate with her by having the child translate from English to Spanish. In the course of the discussion, Amy squats down so that she is speaking to the child at her own level. The child, however, seems to be only slightly more fluent in English than her mother, and it is several minutes before the mother appears to understand what Amy is saying, and is satisfied with the explanation.

While all of this is happening, another instructional assistant comes into the classroom and sits quietly at the back of the room. Amy announces, "If anyone has a white or yellow note, please bring it back." The children who are seated, chat quietly amongst themselves as they wait for the others to join them. The talking stops when announcements come over the intercom. Announcements are followed by O'Canada. The children and teachers stand and sing along. As soon as O'Canada has ended the children leave their tables and move over to the "sharing corner" where they sit on the

rug. Two children do not join the others, but go to the computer centre where they begin playing a computer game.

Amy sits on a small chair at the front of the group. She again reminds the children to bring back their permission slips if they have not already done so. She also reminds them that they will be participating in a "special event" this afternoon. The special event will be an opportunity to work with an "artist in the school" who will be making hats with them. Amy introduces me to the children and tells them that I will be visiting in the classroom this morning. I show them my note pad and explain that I will be writing about the things that they do during the morning. Following my introduction, Amy proceeds with roll call. She calls out each child's name, and the children respond with "good morning" or "here". She asks if anyone is ordering lunch. When there is no response, she asks two children who have been designated as "helpers' to take the attendance sheet to the office.

At this point, Amy notices that a child at the back of the group has begun to play with some of the materials in a "take-apart" box which is near him. (The "take-apart" box contains old appliances such as toasters and radios which the children can dismantle with screwdrivers and pliers.) Amy asks the child to move closer to the front of the group so that he won't be "tempted by the take-apart box". The child complies with her request. This is done quickly and quietly on the part of both teacher and child.

On the bulletin board behind Amy is a tally of the days that the children have been at school during the current month. The children count out the days with Amy as she points to the tally marks. She then directs their attention to the calendar and talks about odd and even numbers. She invites a child to come up and read the sign beside the calendar - "yesterday was...., today is ...., tomorrow will be....".

Around the top of the bulletin board is a number line which indicates the number of days that the children have been at school during the year. Today is Day 157 and Amy asks how many hundreds, tens and ones this represents. The children put up their hands and respond with the appropriate answers when called upon. Amy then asks, "What would ten less than 157 be?" Again, many of the children respond by raising their hand. Once the correct answer is given, Amy continues to extend the discussion by again asking, "What would ten less than 147 be?" She continues in this vein until they reach 77. Most of the children have become quite involved in this exercise. Many wave their hands excitedly wanting to give their answer. There is quite a lot of discussion about the answers. When they reach 77, Amy asks what these numbers have in common ("What is the same about them?"). After some debate they agree that they all end in seven.

Amy then turns the conversation to a discussion of money. She asks, "How much money do we have?" I am puzzled

at first by this question, until a child responds with, "one dollar and fifty-seven cents." I realize that they are converting 157 (today's number on the number line) into money. Amy asks them to describe $1.57 in another way. They respond with several suggestions (e.g. six quarters and seven pennies, one hundred and fifty pennies, etc.). She then asks, "How many dimes, how many nickels?" These questions generate further discussion, and after several wrong answers are given, the children eventually come up with the correct answers.

Following the math discussion, Amy selects a story and introduces it to the children. She first explains why she has chosen this story. (It is related to the current theme which the children have been studying.) She points out that this book has won an award (the Newberry Medal), and she shows the children the medal which is on the jacket of the book. She also explains that this book is non-fiction and she briefly discusses the difference between fiction and non-fiction books. Amy then opens the book to the title page and asks, "What's this page called?" A number of children raise their hands. Amy calls upon a child who responds with the appropriate answer. This exercise is again repeated when she turns to the dedication page of the book. She then reads out the names of the author and the illustrator, and briefly engages the children in a discussion about the illustrations on the inside cover of the book.

Before beginning to read, Amy says to the group, "Make sure you're sitting comfortably so you can see." She also asks one child to move. Amy begins to read, and the children listen attentively. She reads with a great deal of expression, stopping occasionally to make a comment or to ask a question. While Amy is reading, both of the instructional assistants sit on chairs at the back of the group and observe.

During the story, the two children who are working at the computer, become quite engaged in the game they are playing, and forgetting themselves, begin to speak in increasingly louder tones. Amy stops reading and reminds them that they must be very quiet during the story. They lower their voices briefly, but soon appear to forget and once again begin to speak in loud tones. This time the instructional assistant speaks quietly to them and they once again lower their voices. The other children do not appear to be distracted by their conversation, as they listen attentively to the story. When Amy has finished reading, she invites the children to respond to the story. Several children share comments with the rest of the group.

When the story and discussion are finished, Amy announces, "You're going to read your home reading with a partner. Try and find a different partner today." The children leave the sharing corner and take their books from their home reading folders. Most find a partner and quickly begin to read. Five children do not read with a partner, but

instead write in response logs about the books they have read at home. At this point, the two children who have been working at the computer centre join the others. The transition is made fairly quickly and soon everyone is engaged in reading, or in writing in their response logs. Most children sit at tables. Two children sit on the floor at the back of the room.

The instructional assistants each sit with a pair of children. One listens two children read. Another reads to two children. Amy acts as a reading partner for a child who does not have a partner. All of the children appear to be engaged in the task. There is a quiet hum in the classroom as the children read to each other. Some children talk to their partners with obvious interest and enthusiasm about the books they have read.

As the children finish their reading, they put away their books and take out project books or writing folders. This is done without any direction from the teacher. It would seem that this is part of their daily routine. Some children are writing and illustrating books about animals. Other children have writing folders and are writing on topics of their choice. Still others are conducting research by looking through books for information related to their topic. One child dictates her story to the instructional assistant.

Although the children are assigned to specific tables for the writing activity and for other activities throughout

the day they are not grouped by age or ability. The groups are heterogeneous and at each table there are children working at a number of different levels. Some are printing two or three sentences which are full of invented spellings. Other children are producing longer, more sophisticated pieces of writing, and using more conventional spellings. They use a variety of types of paper, both lined and unlined, and some children make their own lines on the paper.

In the course of moving from the reading activity to the writing activity, one group of four children gathers at a table where some bean seeds have been planted. There is some discussion about who has had a turn to plant seeds and how long it will take for the seeds to grow. After a few minutes they move on to the writing activity.

During the writing time, Amy moves from table to table discussing with children their current piece of writing. These discussions are collaborative in nature. The children read what they have written and she asks them questions and provides suggestions. Periodically children come to her with their own questions or with a completed piece of writing. The children seem to have a very strong sense of ownership of their writing. Amy fosters this ownership by encouraging children to evaluate their own work, and by encouraging them to solve their own problems whenever possible.

There is a considerable amount of talk during the writing time as children ask for and give each other help in

spelling words, illustrating stories, and researching topics. All of the children appear to be actively engaged in some aspect of the writing process, and there is a sense of purpose and industry in the classroom.

10:30 a.m.

At 10:30 Amy announces, "Boys and girls, its time to put our writing away and get ready for recess." The children put their books and folders away and line up at the door. The buzzer rings. When everyone is in line, Amy indicates that they may leave, and they file out. At this point both of the instructional assistants have left the classroom, and Amy joins them in the staff room for coffee.

10:50 a.m.

At 10:50 the buzzer rings and Amy leaves the staff room and returns to the classroom. The children file into the classroom and sit on the rug in the sharing corner. Amy sits on a chair at the back of the group. She invites one of the children to sit in the "author's chair" and read his research book about grasshoppers. He reads a page at a time, showing the illustrations on each page. The children appear to be quite interested, and when he is finished everyone claps. The children then put up their hands and ask him several questions to which he responds.

When the questions have been answered, Amy announces, "We're going to do activity centres." She begins by asking,

"Who did planting centres yesterday?" Several children put up their hands, and they are paired with children who have not had a turn to plant bean seeds. In all, six children go to the planting centre. Amy then asks, "Who did skipping at recess?" The children who raise their hand are the next to choose centres. Amy continues to select children to go to activities on the basis of their recess activities.

The children select a variety of activities. Three children choose to work with marbles. They manipulate the marbles in a specially constructed box which requires them to balance a certain number of marbles on each side. They also make ramps with the blocks and roll the marbles down the ramps. One child is working at the take-apart centre, dismantling various appliances. Two more work at a table with Plasticene. One child is dressing up at a dramatic play centre, and two children make patterns by stringing beads. Two children choose to work at a construction centre where they use junk materials (egg cartons, toilet rolls, styrofoam trays, etc.) to put together various "creations." Three children go to the reading corner where they begin to rehearse for a puppet show which will be based on a book they have read. (The puppets are conveniently stored in the reading centre.) One child chooses to continue the writing activity he had been working on earlier in the morning.

As the children at the planting centre finish their work, they join the others at various centres around the room. Most children remain with the activity they have

chosen, but a few change activities at some point during the morning.

During the activity time, which lasts for approximately half an hour, Amy also circulates about the classroom. She is able to get to most of the centres during the morning and she observes the activities and engages the children in conversations about their work.

At the planting centre, the "experienced planters" explain to the newcomers the required procedure. A book about plants has been placed in the centre. It outlines the procedure which is to be followed. Most of the children seem to be familiar with the book and they refer to it frequently. At one point two children come to Amy with a question about the planting procedure and she suggests that they go back and check the book. Amy's "hands-off" attitude towards this centre seems to encourage a great deal of discussion and problem-solving on the part of the children who are working there.

11:30 a.m.

Amy rings a bell which evidently signals the end of the activity time. There is a collective groan as the children begin to tidy up. Amy reminds the children to take out their journals. As the materials are put away, each child gets his/her own activity journal, takes it to a table and records what he or she has done during activity time. The children not only record what they have done but who they've

worked with, what they've made, any problems they've encountered, and any other relevant comments. Amy responds to the children's comments each day with a question, suggestion, or a comment of her own in each child's journal. It is obvious that the children look forward to reading the previous day's response from their teacher. As the children work on their responses, they ask each other for help with the spelling of names and other words, and they check the spelling of various centre names which are posted on a bulletin board.

As the children finish writing in their journals, they put them away and return to their tables. By 11:45 almost everyone is finished. Amy instructs them to line up by the door. The buzzer rings and the children leave and Amy leaves for lunch.

12:45 p.m.

The children begin to enter the classroom, a few at a time. As they enter, they select books for DEAR (Drop everything and read), and they sit at their assigned tables and begin to read. Amy helps some of the children with their selection. I note that she seems to spend more time with two particular students than with some of the others. She later explains that one of the two is a new student who has just recently arrived from El Salvador and was enrolled in the school that morning. As this child speaks only Spanish, she

has paired him with another child who speaks both Spanish and English and is able to translate for him.

When all of the children have selected their books and are seated at tables, Amy says, "I'm going to do a quick roll call". She calls out the children's names, and they each respond with, "Here." When roll call is complete, she gives the attendance sheet to a child who takes it to the office. The classroom grows quiet as the children continue with their reading. At one o'clock the speech and hearing clinician comes into the classroom and takes a child out for speech therapy. A volunteer from the high school across the street also arrives and takes a child out to play some language games. Two children sit in the listening centre with head phones and listen to a story on tape. One of the instructional assistants reads to a child in the book centre. The rest of the class are reading quietly at the tables.

Amy calls a child to the meeting area for a reading conference. They sit together on small chairs and Amy begins by asking the child to read a selection to her. She then engages the child in a discussion about the book that has been chosen. As the conversation proceeds, Amy jots down some notes on a file card. After about fifteen minutes, the child returns to his table and Amy calls up a second child for a conference.

Most of the children are involved in their reading during this time. After about twenty minutes, some children

have finished reading all of their books and magazines, and several quiet conversations begin around the room.

1:15 p.m.

Amy instructs the children to put their books away and come to the meeting area. She also asks two children to put out the math tubs. While the other children are moving over to the meeting area, the two helpers take tubs of "hands-on" math materials from the shelves and place them on each table. They put two or three tubs on each table and then join the rest of the group. Amy, meanwhile, takes a basket full of math booklets from a shelf and sits on a small chair at the front of the group. She asks, "How many children got more than one job finished yesterday?" A number of hands go up and she responds by saying, "That's great!" She hands out the booklets from the tub on her lap to about two thirds of the children. To the remaining group of children she distributes large pieces of paper.

The children move off to their various jobs, evidently knowing what to do without further instructions. The children working on math booklets use the materials on their tables to create various combinations of numbers ranging from six to seventeen. For example, a child working on the number six could use different groups of coloured beads to create the number six. (i.e. 2+2+2, 1+5, 1+2+3, etc.). He/she would then record pictorially the various combinations, and finally write number sentences to

accompany the pictures. The tubs at each table contain a wide variety of materials including things such as unifix cubes, pattern blocks, coloured beads, toothpicks and bottle caps. The children are obviously very familiar with the materials and they use them in a variety of ways depending on the nature of the material and the requirements of their activity.

The children who are working with the large pieces of paper are doing a shopping activity. Using fliers and catalogues, they cut out pictures of items they would like to buy, along with the accompanying prices. The pictures and prices are then pasted on their paper. They each have an imaginary $100 to spend and they must not spend more than that amount. As they paste items on to their paper they add up what they have spent and try to come as close to $100 as they can.

Although there is a great deal of talk during both of these activities, most of the children quickly become involved and attend to the task at hand. Amy works with the new child, showing him how to use the materials and getting him started on a booklet. When she moves on to another table, several children voluntarily assist him with his math by gesturing or demonstrating for him what he is to do.

As the $100 group finishes their activity, they put their materials away and move to the back of the room where they take out tubs of materials and begin to work on estimation problems. This is again done without any

direction from the teacher. They become quite involved in their activity, and as they do so, they converse in increasingly louder voices. By 2:05 the noise level in the classroom is quite high. Most of the talk, however, relates to the work being done and most children are still on task.

2:15 p.m.

Amy asks the children to tidy up and sit at their tables. They quickly put their materials away and she calls one table at a time to line up for recess. At 2:20 the recess buzzer rings and the children hurry outside.

Amy wheels a cart of home baking from the back of the room into the hallway where she and another teacher sell cookies and cakes during recess in order to raise money for a field trip.

Following recess the children go to gym and music class, and Amy goes to her weekly review meeting with the principal. Both Amy and the children return to the classroom at 3:30. When the children have selected their books for home reading, they leave to go home.

Amy remains in the classroom till approximately 5:30 p.m. She says that she likes this time to reflect on what has happened during the day and to prepare for the next day.

Record Keeping and Evaluation

During my observation in Amy's classroom, it was clear that students were very much involved in evaluation of their own progress. Amy described evaluation as "a process between the child and myself." She said that all of her records were always available to children.

At the beginning of the year, Amy does a series of interviews with the children. She feels that these interviews help her to quickly get to know her class. One of the interviews entitled "Concepts about Print" is used only with the younger children. The purpose of this interview is to attain a picture of the child's understanding of print and how it functions in books. A second interview which Amy uses with all of the children is about the kinds of books that they like to read. In this interview she asks questions such as: "Who is your favorite author?", "What is the best/worst book you've ever read?". Another interview called Burke's reading inventory focuses on the child's perceptions of himself/herself as a reader. The child is asked questions such as: "Do you think you are a good reader?", "What do you do when you come to a word that you don't know?".

Another tool, which Amy uses at the beginning of the year in order to find out about the children's perceptions of themselves as learners, is a self evaluation questionnaire (See Appendix). As some of the children are not able to read this questionnaire at the beginning of the year, Amy works with the whole class in order to explain the

questions and help the children record their responses. The children are asked to consider questions such as: "Are you a good listener?", "Do you always tidy up when you are finished your work?", "Do you always try to do your best?".

Amy uses a variety of strategies for keeping track of the children's progress in writing. In the children's writing folders are several forms which both she and the children use to record what each child can do, and to help set realistic and attainable goals on which each child can work. One of the forms attached to the back of the writing folder is entitled "What I know about" and a second is entitled "What I'm learning about". Amy says of this form,

> I did this myself. I didn't do it collaboratively with the child. It was me looking at their writing and assessing it. It made report card writing three times as long. ....I use this as a reference point still and the children do as well. They look back on what kinds of things they were doing well and what kinds of things they were needing to work on. So we do use it as a basis for discussion regularly during the writing conferences, but that's kind of where we started from, and then when I did the next set of evaluations I could look at what this child was working on here, the areas that needed developing, to see if those things had in fact happened.

Amy also meets on a regular basis with children to discuss with them pieces of writing on which they are currently

working. This was evident when I observed in her classroom. During the writing time she moved from child to child, asking children to share their current pieces of writing, asking them about any problems which they were encountering and any thoughts they had about revisions. Her discussions with the children were collaborative in nature. She asked the children many questions which encouraged them to evaluate their writing, rather than just imposing her own ideas for revision.

Her discussions with the children focused on a variety of issues related to writing. In reflecting on these discussions she said,

> I've seen lots of writing folders where the emphasis is all on the mechanics of writing. For instance, here, this child is using different formats. He's using poems, non-fiction, articles, letters, etc. He's using models for writing. He's getting ideas from other books. And he needs to work on more information in his writing, like the setting and the character. So its more than just the mechanics, but the content and the style.

Amy indicated that she planned to keep the children's writing folders from year to year. She felt that this was one of the real advantages of multi-age grouping - that both the teacher and the children were able look at their writing development over a three year period.

Spelling was something that Amy said she had "really wrestled with." She felt that she needed to be more systematic about keeping track of each child's development in relation to spelling, and in assisting children to develop good spelling strategies. One record keeping strategy which she had used was to go through each writing folder and make a list entitled "Words I know how to spell and will spell correctly for the rest of my life". She said,

> I recorded all the words because I felt that it was important to point out to them the things they could do. And again I looked at each individual child. For example, K. is a nine year old and quite articulate and pretty good skill wise, and I wasn't going to record words like "is" and "in" and those kinds of words. I was writing words that I thought were achievements for her level.

From this list Amy would make another list of five words which she thought each child should learn to spell correctly. The child would practice writing the five words in a scribbler until he/she felt confident that the words had been mastered. He/she would then get together with another child and they would ask each other to spell their respective words. Once the friend deemed that the words had been spelled correctly, the child would record them in a small commercial dictionary and then go on to the next five words.

Amy keeps her notes about children's reading development on file cards. Every day after lunch the children have a half hour of quiet reading when they choose three books, one of which must be a book they can read. During that time Amy calls children randomly to read to her. She also takes this opportunity to engage the child in a discussion about a variety of issues related to the books which the child is reading. She says,

> It depends again on the age of the child as to what we talk about. Sometimes we talk about content and sometimes we're looking at strategies that they're using. And I just document myself what I'm observing. And I always ask a substitute or a student teacher, whoever else is in my classroom, to record on my cards, because I'm always interested to know what someone else is observing.

When I observed, I noted that Amy's discussions with the children did not follow a particular format. The conversations were informal, more like two good friends talking about a book. Amy says,

> We'll discuss whether or not the story was appropriate for them. They're really good at knowing whether something was too easy or too difficult. But sometimes, even though the print is easy, there's a real interest in the content or the illustrations or there's another reason why they've chosen it. So those are important things to note as well.

Another source of information about the children's progress in reading is the comment sheet which is kept in each child's reading folder. Amy says, "Some parents write interesting comments and some just leave it. But I think its important. I think it lends even more importance to the job." When the children bring their home reading book back to school they practice reading that book with a partner. During that time Amy circulates around the classroom and again is able to gather additional information about what the children are reading and the strategies they are using.

The older children do not share their home reading with a partner, but instead keep literature logs. Amy says, "They record their observations. Its almost like writing a little précis and a reaction to it. And then I interact as well. I started that with the older kids because I felt they didn't need that reading practice anymore, that they should be extending themselves in different ways."

Amy found record keeping and evaluation in mathematics a real challenge in the multi-age program. She uses the Math Their Way program in her classroom and she says, "I'm needing to be in a million places at once." She says that she does individual interviews at the beginning of the year to gain some insights into the children's knowledge of mathematical concepts. She also does a lot of observing at the beginning of the year. She says, "We did lots of sorting and patterning and all that kind of thing. So I just kept anecdotal records on them, and did observations of what they

were doing." Later in the year the children work on math booklets. Amy says, "They use first concrete and then abstract, and I can see how they're doing with that booklet and I'm interacting with them constantly all day, so I have a very good view of their development."

During centre time Amy records her observations of children as they engage in the various activities. She says,

> It just gave me a record of oral language, behavior problems, interaction with other children, the kinds of choices they were making. And I didn't do this on a daily basis, because I like to be with the children while they're at centres, so I would try to remove myself once or twice a week to do some observing.

Amy keeps scraps of paper for jotting down her observations and then places these in a file folder which she keeps for each child.

The children also keep a journal of their activities at centre time. They are required to record what they did and to elaborate on their activity (i.e. indicate what if anything they made, who they worked with, etc.). Amy reads the children's journals each day and writes a response. She says, "I always ask a question or write a response to which they must respond." This daily written contact with the children provides Amy with additional information about their activities and their ability to record information.

Amy's Reflections on Teaching in a Multi-age Classroom

Amy had long been concerned that grouping children by grade was a contradiction to her own understanding of how children learn. She felt that the graded system imposed external curriculum expectations which sometimes superseded the developmental needs of the child. She saw multi-age grouping as a way to meet children's developmental needs, and a way of creating a system of continuous progress. She said,

> ....it (multi-age grouping) offers a situation where each child is able to function at his/her own developmental level without having the frustrations of curriculums at each grade level. So if you're not ready to do two digit addition at whatever age you're supposed to be doing that, there's no frustration for the student. They're allowed to work through those stages as they're ready, and work on to the next.

In this sense, she felt that multi-age grouping encouraged a more child-centred approach to teaching and learning.

Amy felt that multi-age grouping fostered children's self esteem by allowing them to feel successful at what they were doing. She said, "They're feeling good about whatever it is they're doing because that whole comparison element seems to be eliminated. Although there are eight year olds doing more sophisticated things in the classroom than perhaps six year olds are, you tend to be more comparative when you're in with a group all your own age."

Amy also believed that multi-age grouping provided many opportunities for dialogue and interaction between children at various levels of understanding. In our discussions she talked about an activity which her student teacher had planned in which the children were required to classify animals into six groups. She said,

> And they really had a very difficult time thinking of ways to sort those animals. But I thought it was a great success, because I think learning happens when you have that disequilibrium, and they don't know how to do it, and came up with many reasons and groupings, none of which we had even thought of. You can't have that preconceived idea of what you want. They came up with their own strategies and reasons, and she (the student teacher) thought that they were confused, and there was lots of talking and frustration. And I thought that was really wonderful, because that's learning!

Amy felt that this activity was more successful because of the diversity of the group of children. She said, "The advantage in the multi-age classroom is that you have children with perhaps more sophisticated understandings of some of those things. And kids have to explain their reasons for and why, and help each other, and all that dialogue goes on at a much broader range."

Amy felt that the multi-age program offered many opportunities for children to help one another and to be

teachers. She saw that this was advantageous to children in a number of ways. She said,

> Children often know the answer but don't know how to get there. And if you're helping another child, you have to explain the process to them and help them through the process. And I think there's learning in that situation for the teacher-child as well, because they're needing to clarify and verbalize how they came to that answer.

She believed that children were not only learning from one another, but that they were also developing increased self esteem by working together and helping one another. She said, "We're all teachers." For Amy this meant that children in the multi-age program had many more opportunities to develop personal skills related to helping, and that they viewed themselves as a community of learners.

Amy found it relatively easy to move from a single grade to a multi-age classroom. She attributed this to the fact that she was familiar with activity based, whole language teaching and learning. She said,

> I think that you have to have activity based learning in place, or value that that's a good way for children to learn. I think that you have to value the use of whole language, that children write and read at their own levels, and you need to have a good understanding of how children learn language, both written and spoken. .... If that isn't there, I could see why you

would perhaps not choose to go that way (multi-age grouping).

The one area that Amy did find difficult to deal with in the multi-age program was mathematics. She said,

> Math was one area that I really had to wrestle with because you'll have children at one end who perhaps can't count five objects, and children at the other end who can abstract multiplication concepts. And so that for me has been a challenge. ....It would be easy to do if you ran off a pile of workbook pages, but that's not how I teach. ....So I've really had to become resourceful in designing lots of manipulative activities that can challenge all of the children.

Amy had used a variety of strategies to develop a math program which she felt met the broad range of development that was represented in her class. She had started with the Math Their Way program as the basis for her own planning (She had previously used the program at the grade one level and she had taken a course related to Math Their Way over the summer.). She had extended many of the activities designed for grade one to include challenges for the seven and eight year olds, and she had developed many new activities. She also capitalized on daily activities in the classroom to expand children's understanding of mathematical concepts at several different levels. An example of this was the calendar activity which I observed during my visit. Amy had also begun to work collaboratively with several of the

other teachers to develop math kits. Each kit related to a particular topic in mathematics, such as measurement or fractions, and provided a range of activities for children in the multi-age program.

Amy said that initially she had worried that the program might not meet the needs of the older children in the class. She had found, however, as the year progressed, that her fears had been totally unfounded. She said, I have friends who teach grade three, which is the age of the oldest kids, and when I talk to them about the kinds of things that they're doing, I'm feeling that my children can hold their own very well."

Amy felt that parental support was particularly important to the success of the multi-age program. She said, "They (parents) need to understand what it is you're doing and why you're doing it. .... So I think its really important for the teacher to have a real sound knowledge of child development and to be able to convey that to parents." Amy felt that parents had reacted positively to the multi-age program in the school, and she attributed this to the fact that they were encouraged to ask questions and that she and other staff members made every effort to provide them with information about the program. She said,

> All parents have gone to school, and all parents have an understanding of what school is like, and when they come to our classrooms and see such changes, they have many questions. .... and I think that's great that

> they're asking questions, because then we can have a dialogue and communicate and then there's an understanding.

In reflecting on her year in the multi-age program, Amy felt that moving from a suburban school to an inner city school had more of an impact on her as a teacher than did the move from a single grade to a multi-age classroom. She said, "Those two factors have been very dramatic changes for me, and its hard almost to separate the two. To be very honest, its probably more the community that's made me look at things differently, because I could see having multi-age in any community."

Another significant change for Amy had been the freedom to plan, in collaboration with the children, a program based on their needs and interests. She said

> I feel I have supports in this school that I've not had before, that have removed the hoops for me to jump through, one of those hoops being curriculums, goals, objectives, and all that stuff that in a sense inhibits learning because its coming from beyond the child. The resource people and the administration at this school have removed those hoops I feel. I've always felt really frustrated. I don't know if that's because of the administration I've worked under, what the reason for that is, but I've been really frustrated by curriculums in that they've confined learning. I feel those doors have been opened for the children to have

> some control, or lots of control over where their learning goes, and how we plan for learning in our classroom.

This kind of professional freedom had been, for Amy, an important change in her teaching career. She felt that she was able to function more effectively as a teacher, and she was excited by the fact that children were taking control over their own learning.

Final Reflections

Amy's understanding of how children learn was clearly reflected in her approach to teaching. She strongly believed that curriculum should derive first from the needs and interests of the child. This commitment to child-centred learning was evident in her efforts to get to know children by observing them, by engaging them in conversations, and by examining representations of their knowledge.

One of the most salient features of Amy's classroom was the sense that the children were in control of their own learning. Amy supported children as they made decisions and solved a variety of problems. She encouraged this type of learning by casting herself in the role of a facilitator, and by creating an environment where everyone's ideas were valued. Another indicator that children were in control of their own learning was the fact that they were very much involved in evaluating their own work.

Moving to an inner city school had been, for Amy, more of an adjustment than the change to multi-age grouping. The children with whom she worked provided some unique challenges, and the physical classroom space in which she worked was less than ideal for operating an activity based program. She had been very resourceful in dealing with both of these challenges. She felt that in many ways, multi-age grouping had enabled her to more effectively meet the diverse needs of the children in her class, and to deal with the limitations of the classroom space.

Probably the most significant change for Amy had been the degree of professional freedom which she felt she had been given in her present school. In other teaching assignments she had felt restricted by curriculums, goals and objectives which had been imposed from beyond the child. In her present school she felt that she was able to put the child's needs and interests first, and this for her had been enormously satisfying.

Amy also saw the multi-age program as an opportunity to work more collaboratively with colleagues. She said, "I'm used to working as part of a team and I think I'm more inspired or I function better when I'm batting ideas around. She felt that the multi-age teachers had just begun to develop a sense of team, and she was hopeful that there would be more opportunities for collaboration in the future.

Amy had also found her weekly review meetings with the principal a valuable opportunity for dialogue and

reflection. She and another teacher in the multi-age program met once a week for an hour with the principal to discuss a range of issues related to the multi-age program. The agenda for these meetings was developed collaboratively between the three participants. They could focus on topics as broad as "the writing process" or as narrow as dealing with a specific child. Amy felt that this type of dialogue and reflection was important to her own growth as a learner.

Although Amy felt that she had changed as a teacher, she could not attribute any of these changes directly to multi-age grouping. She felt that her fundamental beliefs about teaching and learning had remained the same. Multi-age grouping had simply been a facilitating factor which allowed her to translate her beliefs into practice.

CHAPTER 6

Themes

Introduction

In the case studies, I have attempted to present a picture of the three teachers and their classrooms. Though limited in scope, I believe the case studies, do provide valid and reliable information about teaching and learning in three multi-age programs. In the interviews and observations certain themes emerged over and over again, and it became apparent that there were many common threads in the three teachers' belief systems and in the structure of their classrooms. The themes which have emerged are, in many ways intertwined, and it is difficult to discuss one theme in isolation from another. I have therefore grouped my discussion of themes into three sections entitled: child-centred integrated learning; positive realistic self esteem for all children; and communities of learners.

To put the themes into perspective, it is necessary to first of all recognize some of the similarities and differences which existed in the three multi-age programs and in the approaches used by the three teachers.

One important element which was present in each of the case studies was the congruence between what teachers said and what they did. Each teacher adhered to a certain set of beliefs about teaching and learning, and each one in her own

way, reflected those beliefs in the way she organized her classroom and in the way she interacted with children.

Another similarity existed in the teachers' previous teaching experiences. All three had at one point in their careers worked with children at the kindergarten and grade one levels, and two of the three (Amy and Rachel) felt that this had been a distinct advantage in setting up a multi-age program.

Other similarities existed in the instructional methods which were used. All three teachers used a whole language approach to teaching language arts. This meant there were no basal readers or workbooks used. Rather, the children engaged in a writer's workshop each day, during which time they wrote on topics of their choice or on topics related to the current themes of study. Each classroom also had a large classroom library with a broad range of reading materials from which the children selected books for reading. All three teachers had also organized their classrooms into activity centres each containing a wide variety of materials. A part of each day was given over to an activity or choice time, during which children were able to choose from a variety of activities relating to all of the curricular areas.

Although there were many similarities in the three classrooms, there were also differences. The three teachers were at different stages in terms of the length of time they had worked in the multi-age setting. Rachel was in her third

year in the multi-age program, Gail in her second year, and Amy in her first year. All three teachers organized their day differently, and in the observations it became apparent that each teacher used a different approach to teaching math.

Although they used some similar evaluation strategies, there were also differences. Gail used photographs and videos more than the others. Rachel organized the children's work into one large portfolio from which the children selected certain work samples to go into a scrapbook. Amy made extensive use of interviews with children. The parent teacher conferences in each classroom also took different forms. Rachel involved the students in the conference. Amy focused on sharing information with parents. Gail was more interested in receiving information from parents. All three teachers used a narrative report card but Rachel included with her report a list of criteria to which she referred in the evaluation process.

The personalities and the interests of all three teachers were very different and this was clearly reflected in their classrooms. It was easy to see Gail's deep commitment to the children with whom she worked. She was also a great animal lover and that fact was very evident in her classroom. Rachel created an environment that was both accepting and secure. Children in her classroom learned to approach tasks in a very systematic way, and they developed many problem solving skills. Amy's warm and enthusiastic

nature shaped the learning which occurred in her classroom. She modeled for children her own love of books and literature, and she empowered children to take charge of their own learning.

When looking at the themes, it is also important to keep in mind the larger school and community setting in which the study took place. The high needs of the student population, and the actual classroom space provided many challenges for the three teachers. All three teachers dealt with the effects of child poverty on a daily basis. Poor nutrition and personal hygiene were ongoing issues throughout the school. Each classroom had between three to five ESL students and significant numbers of students involved with the Child Guidance Clinic and/or the resource program. In addition, each classroom had been assigned a special needs student requiring the support of a full time instructional assistant.

The classrooms were small and the acoustics less than adequate. They were located a considerable distance from the washrooms and the coat hall. None of the classrooms had a sink or even a tiled area for wet activities. One classroom did not have windows. Despite the many obstacles, the three teachers were flexible and resourceful when it came to obtaining materials and organizing their classrooms. All three were "scroungers". They went to garage sales, and did fund raising, and they personally bought hundreds of dollars worth of materials.

It never seemed to occur to the three teachers that they should not do certain things because of the challenges of school and the student population. Rather, they felt compelled to do more in order to meet the exceptional needs of their students and the environment in which they worked. Multi-age grouping was just one of many strategies which they used to address these needs.

Child-Centred Integrated Learning

I've chosen the phrase "child-centred integrated learning" to describe a group of related themes which emerged in the interviews and the observations. For me "child-centred integrated learning" means that the curriculum is based on the needs and the interests of the child. It means that learning begins with what the learner already knows. It implies a focus on all aspects of development - social, emotional and physical, as well as intellectual. It also means that curriculum is very often integrated across subject areas in order to be of relevance to the learner.

Basing curriculum on the children's needs and interests was a high priority for all three teachers. They all agreed that multi-age grouping provided a number of advantages when it came to understanding children's learning needs. First of all, they were able to keep children for a three year period, which meant that during a child's second and third years in the program they had a great deal more information

about that child than they would have had in a single grade classroom. Secondly, they had fewer new children to get to know at the beginning of the year. At the beginning of the school year, routines were firmly established, and they knew two thirds of their class. Consequently, they were able to devote a great deal more time and energy to learning about the needs and interests of the new children.

Evaluation was an integral part of programming in all three classrooms. All three teachers were fastidious about observing and recording their observations. All three met formally and informally with students on a regular basis, not only to assess the student progress, but to gain insights into each student's interests and understandings. All three kept work samples, which they examined over a period of time with the students in order to gain further insights into each student's thinking and learning.

In the evaluation process, the teachers were concerned with the needs of the whole child. They considered the children's social, emotional and physical needs as well as their intellectual development. They wanted to know about the child's life outside school, and they valued parental input in this regard. All three talked about the importance of developing children's self esteem. All three looked closely at how children interacted with one another and with adults in the environment, and all three were concerned with issues such as nutrition which related to the children's physical well- being. The focus of evaluation was much

interest and prior knowledge about hamsters, Gail was able to extend the discussion about the story. She and the children discussed the difference between fiction and non fiction works. They looked at setting and characterization. They compared "The Wild Hamster" to other stories they had read. Because Gail knew a great deal about the children in her class, and because she had built a base of experiences prior to reading the story, she was able to select a story which was not only interesting, but also appropriate to the children's levels of comprehension.

In a similar fashion, Amy and Rachel built their programs on what the children already knew or had experienced. In Rachel's class a visit to the Fort Whyte Nature centre became the starting point for a study of life cycles. In Amy's class the children acted out puppet plays based on stories which they had read and discussed.

The element of choice in all three classrooms also contributed to the child-centred nature of the three programs. Each classroom contained a broad selection of books and other reading material. The centres held a rich array of hands-on materials, and they were open-ended so that children were able to choose from a range of activities within one centre. In all three classrooms children were able to select the books which they wanted to read. They were able to choose their own topics for writing. Even when the whole class worked on a theme such as animals, there was always an element of choice for children within the

Positive, Realistic Self Esteem for All Children

Throughout the interviews, all three teachers talked about the importance of developing self esteem in young children. They believed that every child needed to feel successful, and they were concerned that in the graded system children were very often set up to fail. When discussing some of the reasons for moving to a multi-age setting, Gail said, " .... you were always looking for ways to make them (the children) feel successful." Similarly, Rachel talked about the importance of success for all children. She said, ".... this (multi-age grouping) really allowed them to be successful, which is ultimately what I want children to be in school." Amy, in discussing the advantages of multi-age grouping, said "They're feeling good about whatever it is they're doing, because that whole comparison element seems to be eliminated."

The notion of "success for all children" was reflected in the three classrooms in a several ways. First of all, children were able to work on tasks appropriate to their own development. They were not defeated by tasks that were too difficult nor bored by tasks that were too easy. During the writing periods, one could see children writing on many different levels. At one end of the spectrum, children were dictating "stories" or writing two or three sentences using

invented spelling. At the other end of the developmental spectrum, children were writing four or five pages, using paragraphs, conventional spelling and appropriate punctuation. Similarly children were selecting books from a broad range of materials. At times, the instructional assistants read to individual children. Some children were reading simple pattern books. Still others were reading longer chapter books.

During math periods and centre times the children were also engaged in a broad range of activities. There was no expectation that just because a child was six years old he/she should be doing the math work which was outlined in the grade one math curriculum. Nor was there an expectation that an eight year old child would not work at the sand centre because he/she was too old for that activity.

Virtually all of the tasks on which children worked individually or in small groups involved some element of choice. Inherent in the choices was a trust on the part of teachers that children would make good choices and that they would learn. All three teachers respected the children's choices whether it was choosing an activity at centre time or selecting a book at reading time. All three were very interested in the choices that children made, and they kept track of these choices through their observations and through the collections of children's work. Amy's description of her reading conferences with children provided some insights into this sense of trust. She said,

> We'll discuss whether or not the story was appropriate for them. They're really good at knowing whether something was too easy or too difficult. But sometimes, even though the print is too easy, there's a real interest in the content or the illustrations or there's another reason why they've chosen it. So those are important things to note as well.

Similarly, Rachel trusted children to accurately evaluate their own work. She said, "You know children are very honest when they evaluate themselves and when you get them to reflect on what they're doing."

In Gail's program the sense of trust was manifested in the responsibilities which children had for the operation and maintenance of their classroom. Children were responsible for caring for the animals, sorting recyclable materials, and leading the "show and tell" period. They were also responsible for keeping track of the time during the centre time, and for ensuring that everyone tidied up at the end of that period. All three teachers trusted their students to be competent and to be responsible for their choices and their actions, and this message had a powerful impact on children's self esteem.

All of the groupings, whether created by the teacher or developed by the children themselves, appeared to be heterogeneous. When I observed in the classrooms, it was virtually impossible to tell the ages of the children. Having previously worked with some of the children in the

three classes, I knew that neither physical stature nor the level of sophistication of the child's work was an accurate predictor of age. Sometimes the teacher assigned a child to a particular group. More often, the groupings were based on choice or on the children's interests. For example in Rachel's class the children chose their own groups for project work. The children in all three classes chose their groupings during centre time. When children were assigned to groups they were almost always in mixed age and ability groups. The one exception to this was during the math period when children worked on specific tasks based on their skill levels. Even in these groupings, however, many of the tasks were open ended, and children would often work alongside a peer on the same topic (i.e. subtraction), but at a different level of difficulty.

The fact that children worked on tasks which were developmentally appropriate did not mean that they never encountered problems. Rather, problem-solving became a natural part of the learning process, and the teachers assisted children in developing a wide variety of strategies to solve problems. This was evident in Amy's classroom when she let the children struggle through the planting activity. It was evident in Gail's math activity when she did not give the children the correct answer, but instead gave them a strategy for verifying their answers. And it was evident in Rachel's classroom when she listened to the children's concerns about a dispute which occurred at recess, and then

encouraged the children to come up with their own solutions. Children were often challenged by tasks, but they did not "fail" in the traditional sense of the word.

As children had a range of choices and were able to work on tasks appropriate to their needs, the element of comparison which is often present in single grade classrooms was virtually eliminated. Children came to expect that they would not be doing exactly the same things as their peers, and consequently they had little basis for comparing their work with that of others. They evaluated their work in comparison to their own previous performance, not in relation to someone else's work.

At the same time, children had many opportunities to help others. Gail aptly described the impact that these experiences had on children when she said,

> I guess we can't ever tell how good it makes someone feel to help daily with things that they would normally not be able to help with. "I can do that! I can do that!" And if they say that ten times in a day, then they start believing that they can do anything.

All three teachers also involved their students in the evaluation process. The teachers were not the sole arbiters of standards. They collaborated with their students to set standards and to evaluate the students' work. One always had a sense that the students, not the teachers, "owned" the work, and that the students were their own strongest critics. As a result, students were never in the position of

"failing" at a task because they did not meet someone else's standard. They were always striving towards mutually agreed upon goals.

In all three classrooms routines were firmly established, and despite the high needs of many of the students, behaviour was rarely an issue. The children were almost always actively engaged in tasks. Rarely did they appear to be distracted or bored. Although many students were struggling with language and/or emotional problems, they were able to feel secure in these classrooms. They were able to control their own learning in many ways. They did not have to compete with other children, and they were able to work toward realistic and attainable goals. They were able to solve many problems independently, and they were able to help others. In this kind of environment all children, no matter what their level of ability were able to feel competent and confident.

Communities of Learners

A third theme which emerged in both the interviews and the observations was the sense of community or "family" which developed in the multi-age classrooms. In all three classrooms one had the distinct impression that both teachers and children were a community of learners who were working together toward commonly shared goals. Gail and Rachel both felt that keeping children for longer than one year had enabled them to not only know their children

better, but to create a stronger sense of being a community or a family. Although Amy's class had been together for a shorter period of time, one could also sense a certain cohesiveness in her class. Despite the different periods of involvement with the multi-age program, similar characteristics in all three programs led to the development of this cohesiveness or sense of family.

One of these characteristics was the social nature of the programs. All three teachers believed that learning was not be a solitary affair. Although children did at times work alone on individual tasks, much of the time they were working in pairs or groups. The classrooms were organized to allow for collaboration, and the children frequently worked cooperatively on a variety of tasks. They sat at round tables, rather than at individual desks, and there was always a buzz of quiet conversation as they shared their work and helped one another.

The fact that children were not segregated by age further encouraged learning and collaboration. Children did not have to compete with one another and they were able to interact with a more diverse group of peers than in a single grade classroom. Amy said, "The advantage in the multi-age classroom is that you have children with perhaps more sophisticated understandings of some of those things. And kids have to explain their reasons for and why and help each other, and all that dialogue goes on at a much broader range." Amy and the other teachers saw the diverse nature of

the groups as an advantage rather than a disadvantage. Giving help and receiving help on a regular basis was an important factor which cemented these groups together.

Teachers were also part of the learning community. They were not the sole dispensers of knowledge. Rather, they explored topics of learning with the children. Their conferences with children were collaborative in nature, and they struggled to understand the intent and meaning in the children's work. They were also learners in the sense that they constantly reflected on what happened in their classrooms, and they frequently altered their programs to reflect their new understandings. Rachel said, "I'm always changing my methods. I've used many different things over the last few years, and I'm sure I'll change them again in the fall." This prediction was born out when I visited the three classrooms in the fall term following the observations and interviews. All three teachers had rearranged their rooms. All three had changed the format of their parent teacher conferences, and all three were trying some new strategies in their math programs.

All three teachers also extended the learning community to include parents. They believed that it was important not only to inform parents about the program, but to actually involve them in their children's education. One way in which they informed parents was through the newsletters they sent each term, outlining the activities and the topics of study in which the children had been involved. They also worked

with the Early Childhood Centre in the school and held parent information sessions, and activity nights which involved both parents and children. Although parents did not frequently volunteer in the classrooms, they were made to feel welcome when they did come into the school. Many came to the Early Childhood Centre with their preschoolers, and they often stopped to chat with the teachers at the beginning or end of the school day. The major vehicle for involving parents in their children's learning was the home reading program. Home reading was directly linked to the reading children did in school, and all three teachers valued parents' input and support in this program.

All of the above elements combined to create a strong sense of community in the three classrooms. Although communities of learners can also develop in single grade classrooms, the multi-age program had several advantages. One was the time element. Children in the multi-age program developed relationships with their teachers and classmates over a longer period of time - a three year time span, versus a one year time span. A second advantage was the fact that children in a multi-age classroom were less likely to feel that they needed to compete with their peers. There were also many more opportunities for children to nurture and be helpers. These characteristics of the multi-age program encouraged the development of a sense of "family".

In the supportive family atmosphere of these classrooms, children were more willing to take risks. This

was very clear in Gail's classroom when children who were shy and the children with language problems trusted their peers and teachers to respond positively when they addressed the whole group. There were many instances in all three classrooms of children spontaneously reaching out to help other children. There was a tremendous of "belongingness" which gave children the courage to take risks in their own learning.

Conclusion

One of the purposes of this study was to present a picture of three teachers and their multi-age classrooms. The preceding case studies provided only a glimpse into the world of the three teachers. Teaching is a complex process, and it is difficult to fully capture in a few brief observations and interviews the essence of an individual's teaching style and life in her classroom. Nevertheless the picture which emerged will hopefully provide some insights not only into the practice of multi-age grouping, but into a range of issues related to teaching and learning.

Although in many ways the teachers and their classrooms were very different, they shared many common beliefs about learning. These beliefs were sometimes translated into different practices in their classrooms, but ultimately one could identify some significant and powerful themes which were common to all three programs. All three teachers incorporated a child centred, integrated approach to

teaching and learning. All three teachers emphasized the importance of developing realistic and positive self esteem in children. In all three classrooms there was a strong sense of family or community.

In the interviews it was revealed that the teachers' belief systems had not significantly changed as a result of teaching in the multi-age program. All three teachers had chosen to teach in a multi-age setting because multi-age grouping supported what they already knew about learning. They believed that in a multi-age setting they could better serve the needs of children. Multi-age grouping was for them one of many strategies which they used to achieve certain goals. It was a means, not an end.

This study leaves a number of questions unanswered and raises several new questions. We know that the teachers in this study shared similar beliefs about teaching and learning. We do not know that this is true for all teachers who teach in a multi-age setting. It is also important to remember that the three teachers in the study chose to work in a multi-age setting. Many teachers in multi-age classrooms do not have that choice. For teachers who did not choose to teach in a multi-age program, we must ask whether or not the very fact of being in a such a setting might alter their beliefs about teaching and learning, and consequently their teaching practices. This is a question that remains unanswered.

One wonders too, at what point in a teacher's understanding of the learning process does he/she come to believe as Gail, Rachel and Amy did, that multi-age grouping just makes sense? Is there a body of knowledge or a certain point of view about learning that causes teachers to embrace the practice of multi-age grouping? The answer to this important question is beyond the scope of this study.

As I waded through the interviews and observations in this study, I found myself thinking not so much about how children are grouped for instruction, as I did about teachers' understanding of how children learn and how that translates into practice. It seems to me that this is the central issue in the debate about multi-age grouping. Educators need to stop asking, "What is the best way to group children?" and begin asking "What is it we want for children in our schools and how can best serve children's needs?" Only when we answer these fundamental questions about teaching and learning will we be able to end the debate about multi-age grouping.

REFERENCES

Carleton Board of Education. (1990). Review of the literature regarding multi-grade classes. Napean, Ontario: Author.

Craig, C., & McLellan, J. (1988). Using multi-grade classrooms more rationally. Canadian School Executive, February 20-22, 30.

Ford, B. E. (1977). Multi-age grouping in the elementary school and children's affective development: A review of recent research. The Elementary School Journal. November, 149-161.

Gayfer, M. (Ed.). (1991). The multi-grade classroom: Myth and reality. Toronto: The Canadian Education Association.

Goodlad, J. & Anderson, R. (1987). The non-graded elementary school (rev. ed.). New York: Teacher's College Press.

Johnson, D., Johnson R., Pierson, W., & Lyons, V. (1985). Controversy versus concurrence seeking in multi-grade and single grade learning groups. Journal of Research in Science Teaching, 22(9), 835-848.

Katz, L., Evangelou, D., & Hartman, A., (1990). The case for mixed-age groping in early education. Washington: The National Association for the Education of Young Children.

Lougee, M. D., Gruenich, R., & Hartup, W. W., (1977). Social interaction in same-age and mixed-age dyads of preschool children. Child Development, 48, 1353-1361.

National Association for the Education of Young Children. (1986). Position Statement on Standardized Testing of Young Children, 3 Through 8 Years of Age. Washington: Author.

Pratt, D. (1983). Age segregation in schools. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Quebec. (Eric Document Reproduction Service No. ED 231 038).

Province of British Columbia. (1990). Primary Program Foundation Document. Vancouver: Author.

Tudge, J. & Caruso D. (1988). Cooperative problem solving in the classroom: Enhancing young children's cognitive development. Young Children, November, 46-52.

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Edited by M. Cole, V. John-Steiner, S. Scribner, & E. Souberman. Cambridge: Harvard University Press.

APPENDIX A

Gail

Initial Interview

Date: May 6, 1992

I (Interviewer): Can you tell me a bit about your teaching background.

T (Teacher): At my present school?

I: I know you started out in phys. ed. Why don't you start there.

T: I was half-time phys. ed. and half-time I.A. (instructional assistant). I worked as an I.A. for a year and up to grade six in phys. ed. and that was for four years, and then I came to this school. I started in grade three, and taught grade three-four one year, and switched to grade two for two years and now this is my second year in multi-age.

I: When you were in university did you go through the phys. ed. stream of the education program?

T: No. I took a phys. ed. degree and I specialized in elementary education, so it was movement ed. with an early

years background. We worked a lot with kids from the day care on the campus. When I went into education there was no phys. ed. It was strictly an education degree.

I: Did you have a lot of experience with cross-age grouping in the phys. ed. program?

T: Not really. Although, I did a lot of recreational, after-hours stuff.

I: So in that setting you did work with mixed- age groups. What got you to the point were you were willing to teach a multi-age classroom? Because I'm assuming that you could have moved when the multi-age program was set up.

T: Yes. We were given the option to move. I think the fact that all the way along, beginning in grade three at this school, I noticed the range of kids in the classroom and how you had to teach to their level whether they were labeled a grade three child or not. If they could only do the beginning skills, then that's what you worked with. And I guess too, I noticed their self-esteem was very low, and you were always looking for ways to make them feel successful, and yet they could see..., they would compare themselves with the majority of the kids in the single grade classroom, and they knew that they couldn't do the things that they were doing, or most of the things they were doing. And then

we were getting the option of going and visiting the other multi-age classrooms and we saw that that could be a way of dealing with the problem of low self esteem.

I: That really helped then?

T: Yeh. It really did.

I: So you saw this as an opportunity to raise kids self-esteem?

T: I guess, its hard you know. Now we've had two years experience....

I: Its hard to sort out what was....?

T: It sounded so exciting. We read all of the literature, and I guess deep-down I was always looking for that answer to accommodate all the children in the classroom. I guess it was the one big opportunity to really give it a shot and teach to all the different levels.

I: I shouldn't put words in your mouth, but it seems to me, I recall, that at the end of the year it was always hard for you to say good-bye to your class just when you felt you were getting to know them. I wondered if that was maybe an issue.

T: That was a biggy. Now that you mention that. Last year was wonderful! We had a chance to look forward to getting three quarters of the class back. It made such a difference in planning. Next year we can do this. You know, the kids get really into the excitement of the whole thing. And knowing the rules. And knowing that once you had that foundation with the kids, then they take it to the next year and they become teachers themselves.

I: That brings me to my next question. What has worked well? What have you liked about multi-age grouping?

T: We made a family. And its a short time.... A ten-month period is a short time to make a family and then have to say good-bye to everyone. Even now we're sad because you get new children coming in and all of a sudden, its good-bye, and its awful. You end up trying to keep them in the classroom. Its the whole family sense, and again, these kids need that so badly, to have that sense of belonging somewhere, and knowing the rules and knowing what to expect.

I: So you're really sold on the concept?

T: I'd say I am.

I: Do you think that its been fairly successful, at least for you, because of the nature of the school or of that community, or can you see it being transplanted into another school.

T: It might be a lot easier in another school because we teach more than fundamentals. I mean, we've got a personal hygiene chart up there, and we don't care if we take twenty minutes out of the day to teach that. And probably if you went to a more affluent school you wouldn't be suggesting that they change their underwear daily.

I: So the good part of multi-age has been keeping the kids more than one year, and having that stable group, building a sense of family.

T: And giving them the confidence to help each other. We've got some older kids there blossoming. I do not think they would be blossoming in a single grade classroom. I guess we really can't ever tell how good it makes someone feel to be able to help daily with things that they would normally not be able to help with. I can do that! I can do that! And if they say that ten times in a day then they start believing that they can do anything. And it doesn't just end, because we still have kids coming back, and they're giving hugs and they're wishing happy birthday, and they're remembering things, so it doesn't just end when they leave the room.

I: What's been the hardest thing about getting started, getting into it?

T: Math. Its the most difficult thing to do with all the different levels, and many of the children are not independent workers. It also cuts down.... You want to do your observations at centre time, and if you make arrangements to teach a math class during centre time, then you're missing out playing with the kids and seeing them play, and at the same time you've got to do that extra group. Quite honestly, I don't know what would happen if you were a single person in a classroom (without an I.A.). You'd just have to be so, so organized to teach the hands-on math three different times.

I: So, the fact that you have a team, that there are always two people in the classroom, sometimes more has really been critical to making it work.

T: In the other schools that were multi-age schools there were always parents coming to help. But we would have to be teaching the parents some of the math, I think, which is not really a possibility.

I: A lot of this (the math) seemed to be an issue the first year. Have you done some things to address the math problem?

T: Speaking for myself, we have multi-age meetings now, once a month, and they've been invaluable. They've pulled us together as a team. I just wish.... The only bad part is that D. (the instructional assistant) doesn't come and the other I.A.'s. I feel that it should be everyone coming together. As far as the math, yes, we talk a lot at our meetings. We do get ideas. Sometimes we sit the kids down with a pencil-paper task, because in the real world there are some pencil-paper tasks, and we don't want them to leave without any kind of exposure to that.

I: Were there any other problems in terms of setting up the classroom and getting started?

T: You have to be very organized, I think. When do have the privilege of working as a team, you talk and you talk and you talk. We review nightly what went wrong and what hasn't gone wrong and how can we fix it, and we try it and sometimes it just goes. And then at these multi-age meetings, too, we make plans and we bounce things off each other.

I: So that daily debriefing is really critical. And do you think it would be a lot harder for a teacher working in isolation, because at the end of the day there would be no one to share concerns with?

T: I would say so. A lot of the other teachers tend to drop by and we chat, and we end up talking for hours just on things like that.

I: If you were meeting with someone else who was just starting up a multi-age classroom, would you have any words of wisdom or advice for them?

T: Every group would be different, I'm sure. You have to be very organized. You have to be prepared to go with the flow. Its just like a regular classroom, really. and I guess, too, with the different ages, you have to get used to letting the kids be teachers themselves quite a bit more, and encouraging that, and develop a family. That would be the big thing. We started off years ago with a hug club, and now they call it.... They know the words. They know that this is our family. And talk with the kids and have a lot of large group things at first, and really get to know them, and let them get to know each other, and do crazy things. Cook! We've only got brave this year with the cooking and we haven't done as much. Last year we were still really afraid to try it. And it works, and its great!

A.M. Classroom Observation

Date: ,May 29 1992

Time: 8:45 A.M. to 11:50 A.M.

1. When I arrive, Gail and Donna (the instructional assistant) are organizing and setting out materials for the mathematics activities which are planned later in the morning.

2. They are also setting out dishes of food for the children to feed to the various animals in the classroom (a hamster, two guinea pigs, and a rabbit).

3. Gail and Donna explain that they actually come to school at six thirty to do some preliminary planning and preparation. They then leave and play racquet ball for about an hour, and return to the school around eight thirty.

4. At 8:50 a.m. the children begin to enter the classroom. They greet Gail or Donna, or both. Many have things to tell them, and they engage them briefly in conversations.

5. Donna reminds them to turn in money and permission slips for an upcoming field trip. Many of the children give their money and slips to Gail.

6. Many of the children also speak to me. Some know me, and simply want to know if I am going to help in their classroom today. Others ask who I am and why I am there. I respond by telling them that I am simply there to watch today. I show them my note pad and explain that I will be writing about what they do.

7. All of the children have brought in a reading folder containing a book for the home-reading program. They record in a small scribbler the date, the title and their response to the book they have read.

8. The responses vary according to the age and ability of the child. Older students write at least a paragraph about their book. Younger students sometimes record only the date and the title.

9. As they complete this task, they place their reading record in their folder, return their book to the shelf and select another book for their folder. They then return their folders to a designated place.

10. The children perform a variety of other jobs. At one point Gail reminds them that jobs are posted on the blackboard.

11. One child takes all the chairs off the tables.

12. Two other children begin feeding and watering the animals.

13. Two other children take responsibility for the calendar. They add the current date to the calendar, and they put the appropriate days on a display that says, "Yesterday was....., Today is....., Tomorrow will be....." .

14. When the teacher has completed the attendance folder, a child takes it to the office.

15. At the back of the room, two boys are sorting materials for recycling. They sort through the various bags that have been brought into the classroom. They spend a considerable amount of time flattening soft drink cans by stepping on them.

16. The children talk quietly amongst themselves and with Gail and Donna. Everyone quickly becomes engaged in one of the above tasks. There is little or no direction or prompting from the teachers.

17. At nine o'clock O'Canada is played on the intercom, and the children stop what they are doing, and stand and sing along. O'Canada is followed by announcements. The children return to their work.

18. At 9:10 a.m. another instructional assistant quietly and unobtrusively comes onto the classroom and takes a child for ESL instruction.

19. As the children complete their tasks, they take a math sheet from one of several pockets at the end of a shelf. They sit at a table with their paper face down and write their name and the date on the back of the sheet.

20. The math papers are different colours depending on the level of difficulty. As they wait for the others to finish, they talk quietly to each other.

21. By 9:20 almost all of the children are seated.

22. Donna asks several children whether or not they have their "mad minute". They quickly finish what they are doing, pick up their math papers and sit down.

23. When everyone is seated, she asks, "Is anyone ordering lunch?" There is no response.

24. Gail then announces that they will begin their "mad minute". She sets a timer for one minute and says, "Okay begin".

25. The children turn their sheets over and begin to fill in the answers. They are very intent, and write their answers very quickly. Some children count on their fingers, in order to calculate their answers.

26. Donna works with two children, who are doing what appear to be the easier math sheets.

27. When the minute is up, Gail says, "Stop! Pencils up. Okay, coloured pencils". There is a scramble for coloured pencils.

28. Gail says, "Ready to correct. Trade with anybody." There is still some hunting for coloured pencils, and some debate as to who should have which pencil.

29. Gail says, "C'mon you guys. This is something we do every day. Be nice." The children quickly sort out the pencils and papers.

30. Gail reads out the answers to the questions. The children mark their classmates' papers as the answers are read, and then return the papers to their owner.

31. Each child tallies up the number of correct answers on their paper. There is a great deal of talking as this is being done.

32. Gail goes to a chart on the wall which says, "Math Club". She calls out each child's name, and the child responds with his or her score.

33. When the score has been recorded, the child puts away his/her math paper and goes and sits on the carpet at the front of the room. This is done without specific direction from either of the teachers.

34. At 9:30 a.m. all of the children are at the meeting area, Gail joins them and sits on the steps at the front of the room.

35. Donna sits at the back of the group on a small chair.

36. There is a brief discussion about the calendar. At Gail's request, one of the boys who had been responsible for the calendar, reads out the signs (Yesterday was..., today is...,etc.).

37. She also asks him what day it is on the number line (a long strip of paper with a number for each day that they've been at school). He responds that it is 157. He then counts out 157 straws which are organized in cans in groups of ones, tens and hundreds.

38. Gail asks, "So, who had a wonderful weekend?" Many hands shoot up. Gail says, "Let's listen and hear what people did."

39. The children take turns talking about their weekend. They talk about such things as going swimming, going to a restaurant, seeing a fireworks display, and going fishing.

40. The children sit quietly and most appear to be listening as the others talk. They frequently make comments and ask questions of their classmates.

41. Gail and Donna also acknowledge each child's contribution with a question or comment.

42. It is difficult to understand several of the children who contribute. One child seems to have an articulation problem. Another speaks very softly and with some hesitation. Several others speak with a very heavy

accent. The children and the teachers, however, do not appear to have difficulty understanding these children as they readily make comments and ask them questions regarding their contributions.

43. During this sharing time, the other instructional assistant returns with the child she had earlier taken out of the classroom, and she takes a second child out for ESL work. This is again done quietly and unobtrusively.

44. By 10:00 a.m. all of the children who wished to share have had an opportunity to speak.

45. Gail reviews the plan for the day which is written on the board. They will be doing writing and math in the morning, and working with an "artist in the school", making hats in the afternoon.

46. Gail announces that some of the children's stories which are ready for publishing have been typed and are now ready for illustrating. She cautions them, "Take your time to illustrate your stories."

47. Donna distributes the typed stories to several children who take them to a table.

48. The other children leave the meeting area and get out either journals or writing folders and take them to tables where they quickly begin to work.

49. They are working at various stages of the writing process. Some are doing first drafts of stories, others, second drafts, and the group working with Donna are illustrating their stories which will be published.

50. One child is drawing and printing his name and the names of some of the other children on his page. Another child draws a picture and then dictates his story to Donna. Other children are printing short stories or writing in their journals.

51. Some of the writing is full of invented spelling. Some stories contain more conventional spelling. Some children are writing longer chapter stories. A few are using cursive writing.

52. Throughout the writing time the children talk quietly to one another, discussing their stories or asking each other about spelling. Occasionally a child will get up to sharpen a pencil or get a reference book or to ask Donna a question. All appear to be actively engaged in the writing process.

53. While the children are writing, Gail sits on the floor in the meeting area and conferences with one child at a time.

54. Children sign up for a conference by putting their name on the blackboard. Gail then calls the child whose name is at the top of the list. During the morning she has time to meet with two children.

55. Gail spends about ten to fifteen minutes with each child. She begins by having the child read his/her current piece of writing to her. They discuss content as well as mechanics of writing.

56. At 10:15 a.m. the fire alarm sounds. Donna simply says, "Fire drill." The children quickly and quietly line up and, along with children and teachers from other classes, they file out on to the playground.

57. Gail grabs an attendance sheet and when the children are lined up outside, she calls out their names. They respond by raising their hand and saying, "Here."

58. They chat quietly to one another until the buzzer sounds to indicate that they may go back into the school. They file back in and resume their work.

59. At 10:30 a.m. Gail announces, "Okay, its recess. We'll share writing tomorrow."(Gail later explains that they normally have a time when they share their writing following writer's workshop. However, today they're running a little late because of the fire drill and because they had a longer sharing time.

60. Gail says, "Be ready for a story when you come in." The children put their writing materials away and most push their chairs in before leaving the classroom.

61. As the children file out, several former students from the grade four class stop by to chat briefly with Gail and Donna.

62. Even though she does not have recess duty, Gail goes out with the children for recess. She explains that she or Donna or both almost always go out at recess in order to monitor the behaviour of one of their special needs students.

63. During this recess period, Donna has a meeting with the principal.

64. At 10: 45 the buzzer rings and the children trickle back into the classroom. Donna is already back in the room.

65. Gail comes in with the children and sits at the front of the room on the steps. The children sit on the carpet in front of her.

66. Gail talks about a personal hygiene chart on the wall behind her. She calls each child's name and goes through the items on the chart (teeth, hair, face, bath, clothes change). The children respond with a "yes" or a "no" to each item. Gail puts a check mark for each "yes".

67. During this time Donna is busy putting materials on the tables for math.

68. Following the personal hygiene discussion, Gail reads a story called the "Wild Hamster" to the children . Before beginning to read, she holds up the book and talks about the author, the illustrator, and the dedication at the front of the book.

69. As she is reading, the children listen attentively and occasionally make comments. During the story Gail stops once to relate a personal anecdote related to the story, and a second time to point out the similarities between this story and another story that she had previously read to the children.

70. In the course of reading the story, Gail discusses setting and characterization with the children.

71. At the end of the story the children spontaneously clap. Gail asks whether or not they think this was a true story and a lively discussion follows in which the children put forth various opinions.

72. Throughout the story "Thumper", the classroom rabbit, hops in and out amongst the children. Some of the children reach out and pat him as he passes near them.

73. As the classroom does not have a door, Gail and Donna have constructed a low gate so that the rabbit can run free in the classroom during the day. The children appear to be very conscientious about closing the gate when they are entering and leaving the classroom, and at one point a child even reminds me to close the gate when I am entering the classroom.

74. At the end of the story Gail says, "Here's the plan for math today," and she gives instructions to three different groups regarding their math activities.

75. One group is playing a game called "Counting Crunchies" with Donna. A second group is playing a money game with

Gail. And a third group is doing written math with math texts and scribblers.

76. Gail suggests to the group who are doing written math that they may go to a quiet place in the room if they find the other's games too noisy.

77. As the children are leaving the meeting area, the other instructional assistant returns and takes two more children out of the room for ESL instruction.

78. The group who are playing "Counting Crunchies" consists of five children. They sit at a round table with Donna. In the centre of the table is a bowl of fruit loops and a pair of dice. Each child has a pencil and a piece of paper.

79. Donna begins by explaining to the group how the game works. Each child throws the die and then announces his/her score to the group. They count out the number of fruit loops indicated by the die and place them in a pile in front them.

80. The pencil and paper are used to keep track of the number of turns the child has had. After the child's first turn, he/she would write "1", after the second turn, "2", and so on.

81. Most of the children add together the dots on the die by pointing and counting out loud.

82. They all keep track of their turns by marking them on the paper, using a variety of strategies. Some children mark their turn before actually taking the turn. Others mark their turn after they have thrown the die and counted out their fruit loops. Some record turns vertically, others horizontally on their paper.

83. There is frequent discussion amongst the children as to whether or not they have counted accurately. When there is a dispute, Donna instructs the individual whose turn it is count again out loud.

84. Gail's group consists of eight children. They are crowded around a small table near a blackboard.

85. On the ledge underneath the blackboard Gail had earlier placed approximately ten small items - a ball, some teddy cookies, some small toys, etc. Above each item she has marked a price. The prices range between three and ten cents.

86. Each child is given a small dish of pennies. Gail asks two children to each select an item he or she would like

to buy. She indicates the prices of the two items which have been selected and the children count out the corresponding number of pennies. She then asks how much the two children spent all together. The children put their two groups of pennies together, count out the total and announce their answers.

87. Gail then says, "I would like to know your number sentence." The children dictate the number sentence and Gail writes it on the blackboard (e.g. 7+8=15). She then asks them for the word sentence and writes it on the board as well (e.g. seven plus eight is fifteen.

88. Some children in this group are able to mentally solve the problems which are posed before actually counting out their pennies. The counting activity simply seems to be a way for them to verify their predictions.

89. Other children appear to operating at a much more concrete level and use the counting and manipulation of the pennies as a way to solve the problem.

90. Gail extends the activity in a number of ways. For example, when the children have solved a problem, she asks them to check their answer by reorganizing their pennies into groups of two and recounting.

91. She also creates subtraction problems by telling the children to start with a certain amount of money (e.g. 15 cents) and pretend that they are buying one or more items. They must calculate how much money they have left and whether or not they can purchase additional items.

92. She also asks them to make up their own story problems.

93. At one point she has to leave in order to help the children who are doing written problems. She chooses a child to lead the group and to record the number sentences. The boy who has been selected stands on a chair in order to reach the blackboard. There is some debate about which items to buy and who should have a turn, but generally the game continues as before.

94. The group which is doing written math problems are working on double digit subtraction with borrowing. There are four children in this group. They appear to be quite focused on the task at hand and they do not seem to be distracted by the games which are going on beside them.

95. Periodically one or another of the children in this group takes his/her book over to Donna and asks for assistance. Donna offers an explanation and the child returns to his/her seat and continues working. When Gail

notices that this is beginning to happen fairly frequently, she leaves her group and spends a few minutes assisting this group.

96. At 11:40 a.m. Gail announces, "One minute to lunch time."

97. Donna instructs her group to organize their fruit loops into groups of ten and to count them. She assists them in adding up their scores, and they discuss who has the most, least, etc. Finally she says that they may eat their fruit loops. Some children eat them right away, others take handfuls with them as they leave.

98. Gail's group has put away their pennies, and the third group has put away their books.

99. Gail takes a pair of dice and asks the two groups to predict how many rolls it will take for her to get to seven. There are many predictions ranging from two to twenty. As she rolls the die, the buzzer rings, but the children are absorbed in the game and do not appear to hear it. Finally she rolls a seven and there is considerable discussion about the various predictions and how close they were to the actual number of rolls.

100. Gail ends the discussion by saying to the whole class, "Have a great lunch." The children get up and begin to file out of the classroom.

P.M. Classroom Observation

Date: June 8, 1992

Time: 12:45 P.M. to 3:45 P.M.

Place: Gail's classroom

1. At 12:45 p.m. the children begin to file into the classroom. They chat with each other and with Gail and Donna. Some children bring an object with them, such as a book or a toy or an article of clothing, which they place on one of the round tables near the meeting area.

2. When all of the children are seated on the floor in front of the steps, Gail announces that they are going to have "Show and Tell." She invites one child to begin.

3. Gail and Donna sit on chairs at the back of the group.

4. They are joined by the school psychologist who has brought something for "show and tell". Gail later explains that both she and Donna usually bring items for "show and tell" and that they also encourage other adults in the school to share items with the class.

5. The first child who has been selected brings her "show and tell" article (a dress) from the round table and holds it up for the group to see. She explains to the class that this was a dress that she wore to a wedding when she was three years old.

6. A number of children raise their hands and when she calls on them they ask her questions about the dress. Some of the questions are: "Are you going to give that dress to your daughter?" "Is it a wedding dress?" and "Does it tie in the back or the front?"

7. She responds to all of these questions, and at one point, with the assistance of Gail, even puts the dress on and models it for the class. (It is very small and very tight!)

8. When all of the questions have been answered she asks, "Who would like to show next?" The children and the adults who have brought items raise their hands and she selects the next person to share something.

9. The "show and tell" session continues with each child bringing his/her item from the table, explaining it to the class, and then answering questions which are posed by the children and teachers.

10. The items include books, stickers, hockey cards, stuffed animals, a balloon and a small car.

11. After several children have had a turn to show their items, the psychologist asks if she may show what she has brought, as she will have to leave shortly.

12. She sits on the steps at the front of the room and produces a bird's nest and some eggs from her bag. She begins by explaining that she has a "sad story" to tell. She says that the nest and eggs were blown out of a tree near her home. She talks about how, in nature, birds sometimes die and eggs sometimes don't hatch.

13. The children are very interested and ask a great many questions. They want to examine the nest and eggs which are contained in a clear plastic bag, and the psychologist agrees to leave them for everyone to look at during activity time.

14. Gail shows an antique matchbox car. She tells the children where she bought it and why she thinks it's very special. (She collects old matchbox cars.) The children are intrigued and again ask a great many questions.

15. Donna has brought a jacket which was given to her as a former member of the Winnipeg Blue Bomberettes Cheer leading Squad. She wore her jacket and marched in the Grey Cup Parade with other former Blue Bomberettes when the Grey Cup football game was held in Winnipeg. She talks to the children about the print on the jacket and explains to them the role of cheerleaders at a football games.

16. The children are very interested and ask many questions about the parade and the game. They struggle with the idea that Donna has done other things besides being a teacher.

17. One child, who has brought a toy to show the class, speaks very softly, and at first seems somewhat unsure of himself. As the children ask questions and he is able to respond, he seems to gain confidence.

18. Gail later explains that this is the first time that this child has brought something for "show and tell" and that he had done so only with some prompting from her. She had spent a few minutes with him discussing some of the things that he might say about his toy prior to the "show and tell" session.

19. During "show and tell" time the children appear to be genuinely interested. They remember to put up their hands and take turns to speak, and their questions demonstrate that they have been listening to what was said.

20. Later when I have an opportunity to talk to Gail, she explains that they only have "show and tell" once a week on Fridays. She also explains that she spends some time at the beginning of the year reviewing with the children the purpose of "show and tell" time, the kinds of items that are appropriate to bring, and the kinds of questions that they should be asking. The older children model for the younger children how items are presented, as well as appropriate questioning techniques. The adults who participate in "show and tell" also model these behaviours.

21. "Show and Tell" time ends at 1:45 p.m.

22. Gail announces the names of two children who will be "choice time teachers". She also announces that blocks, sand, and the computer will be open today.

23. The "choice time teachers" take turns calling out the other children's names. As their names are called the children leave the meeting area and select an activity

in the classroom. They choose activities at a variety of centres including sand, blocks, art, dramatic play, science, books and computers.

24. During choice time Gail observes individuals and groups and records her observations in a scribbler. (She explains to me that she and Donna alternate between observing and interacting with the children.) Today Donna circulates about the room interacting with groups of children.

25. The children are fairly independent in their activities, but occasionally they come to Gail as well Donna to ask for assistance. When this happens, Gail puts down her scribbler and becomes involved for a few minutes.

26. At the sand centre, a group of three children are working with some small plastic people and animals. Donna asks them whether the group has a plan or, "Are you each doing your own thing?" The children state that they're "doing their own thing" and Donna accepts this and moves on to another centre.

27. At the dramatic play centre, Donna becomes involved with a group of children (at one point, six) who are playing "house". She participates in the play by eating "pretend dinners" and drinking "pretend cups of tea".

28. Gradually the house becomes a store and Donna assists by bringing out the cash register and some money and by helping to rearrange the furniture to make a larger space for the store.

29. In the science centre, a group of three children works with a set of magnetic wands and some metal objects. Although this appears to be simply an exploratory activity, it sustains the interest of two of the children for the entire choice time period.

30. At one point, the two children bring their wands to where I am sitting and demonstrate for me how they are able to pick up a variety of metal objects with the wands.

31. One group of girls is working in the writing area drawing pictures with the markers. They refer to several books for ideas and examples of certain pictures.

32. Most of the children remain at the same activity during "choice time". However, a few children change activities several times.

33. Later I ask Gail whether or not there are restrictions on the numbers of children at each centre. She says that

at the beginning of the year she decides what is an appropriate number of children for each centre. However, as the year progresses, she gradually turns responsibility for this decisions over to the children.

34. Each day two children are designated "choice time teachers", and they also take responsibility for deciding how many children should be at each centre.

35. At 2:30 p.m. the recess buzzer rings. Gail says, "You may leave your activities and go out for recess." The children quickly file out.

36. During recess, Gail and Donna remain in the classroom. I share my observations with them and they answer some of the questions I have.

37. Recess ends at 2:35 p.m. and the children return to the classroom and continue with their choice time activities. Gail and Donna continue to observe and interact with them.

38. At 2:45 a child comes over to Gail, points to the clock, and asks her if she has noticed what time it is. Gail says, "Would you please remind the "choice time teachers". The child speaks quietly to the two children

who are the "choice time teachers" and they go round the classroom and tell everyone it is cleanup time.

39. The children quickly put away their materials away. When they are finished, they take out their "choice time" books, which are simply scribblers cut in half. They sit at tables around the classroom and record what they have done during "choice time".

40. There is a considerable range of development reflected in both the content of the writing, and in the conventions of print which are used. Some children write only a sentence stating something such as, "I played in the blocks." Others write a paragraph of five or six sentences, elaborating on what they did and who they worked with. One child simply draws a picture which Donna labels for him.

41. The children talk softly to one anther during this time. They ask each other for help spelling words, and they refer to a list of names and another list of the centres which are posted on the bulletin board.

42. Gail puts a tape in the ghetto blaster and it plays softly while the children are writing. Donna moves about the classroom, helping children with spelling. Gail sits

at a table and continues for a few minutes to jot down notes in her observation book.

43. When the children are finished writing in their "choice time" books they read them to either Donna or Gail. The children who are finished first take a book to their tables and read while they wait for the others.

44. At 2:55 p.m. Gail announces that they will be going to gym when they are finished writing in their books. The children quickly finish their writing and line up by the door.

45. At three o'clock Donna takes them to the gym.

46. While the children are at the gym, Gail and Donna do some further tidying in the classroom and prepare materials for the next day. They chat about how the day has gone, and they share concerns abut a child who had some problems during recess and at choice time.

47. At 3:30 p.m. the children return to the classroom and prepare to go home. They place their chairs on the tables. Some choose books and place them in their home reading folders. Gail and Donna stand near the door and say good-bye to each child as he/she leaves.

48. They stay for another half hour, finishing preparations for the next day and chatting with other teachers. Gail says that she and Donna often talk on the phone in the evening if they don't have time to debrief during the day.

Evaluation Interview

Date: June 12, 1992

I: Can you just talk generally about your record keeping strategies. How do you keep track of where kids are developmentally?

T: I use a black line master with squares for each child to record general observations.

I: And then what do you do with that? Do you cut it apart?

T: No, I just leave it with the child's names on it. And I collect them all and keep them in a binder. And then I take what I've written about each child and then rewrite it on a piece of paper. I sort of collect the data after I've gathered the pieces, and then I put the pieces together at the end of the term. And that's the basis of my reports. That's one segment of how I formulate reports. It's all the things I've noticed and putting them all on one sheet, and then taking a look at it.

I: And do you use that all throughout the day?

T: Yes, all through the day.

I: What about, for example, the day that I was here, you were doing reading conferences with the kids? Do you put that on to the grid as well?

T: Well either that or the day book. I'm not very organized, so I have the two systems. In the day book, I have room to write a paragraph on someone. And again, when its reporting time, I flip through and find that child's name through the whole thing and take note of what I've written.

I: Do you have any other techniques or strategies that you use for evaluation? I know that the day I was here you did writing conferences.

T: And I take the note of what stories they're working on and how long it takes them to complete it.

I: So, do you do that as you're working with the kids or do you jot it down later?

T: Both, but mostly during. And at least once a week we sit in the circle and we share and that's the perfect chance for me to write down something about that child.

I: I know you've done some video taping. Do you use that as a kind of record as well?

T: Definitely. And we take lots of photographs. We showed segments of the video tape to certain parents during parent teacher interviews, and they find it really helpful to see.

I: What about keeping track of the kids' work? What's your system for that?

T: We keep portfolios for writing. And after each reporting time we send the bulk of it home, keeping certain pieces that we like to use for watching how they progress. And aside from that its a lot of hands-on and a lot of language. And then they have a journal.

I: And that's like a personal diary?

T: Yes.

I: Do you keep any kind of reading record? Do they keep track of the books they've read?

T: Yes, they keep track of the books they've read on reading sheets. I also keep the parents' comments from the home reading files. The other thing is that we basically conference daily with at least one of the students. I have the advantage of working as a part of a team. So that means that at least two students per day have a reading conference. I usually use the day book to write about those

things because its longer than the grid or post-it notes. Every morning the children have a chance to write down on the board whether they'd like to read to the class. And I also take advantage of that opportunity to see how they're doing.

I: Before they sign up, do you check with them to see if they've got it all together? Do you have them read you a passage or something?

T: Yes. And they know. Especially because its multi-age they know what to do.
We do a science log book. On the discovery table there's a science log book and they log in what they've done and what they've discovered for that particular centre time. They also have a science journal and they write down what they've discovered, which experiment, what they've learned.

T: What about parent teacher conferences?

T: We have about twenty minutes to about half an hour with each parent.
And we choose certain pieces of writing with the kids, the pieces they thought were most valuable to share with their parents. We do such a lengthy written report that most parents don't have a lot of questions. So you end up finding out a little bit more about what students interests are and

things like that from the home perspective, which often we find is useful. Next year I want to change the reporting system. You get parents who can't read. Their literacy level is such that they can't understand, and they're too embarrassed to tell you. So they actually need to come and see and do a hands-on kind of approach with their child to find out what it is their child is doing. I think the students need to be much more involved in showing their parents their work and what they do.

Rachel

Initial Interview

Date: May 11, 1992

I (Interviewer): Can you briefly tell me what some of your experience was before coming to a multi-age setting.

T (Teacher): Before coming to this school, I taught kindergarten for seven years, and then I taught grade one for two years.

I: And this is your third year at this school teaching a multi-age class?

T: The first year it was a one-two split that worked into a one-two-three, and then it was formally a multi-age the next year.

I: So you've really been doing this longer than anyone else in the group.

T: Mm hmm.

I: What do you see as being the advantages of teaching in a multi-age classroom?

T: Well I think its a personal philosophy, more so, because when I started school as a child, I was in a one-room school, and so I was familiar with the setting of having more than one age in a classroom. I had many fond memories of things I had learned from older students, and that's why integrating the three grades didn't seem that unfamiliar, but I had to think of it based on teaching styles now, rather then when I went through my school experience, and I thought it would work quite well, because in my teaching experience in kindergarten and grade one, I had used things and whole language, and I had children who were at many different developmental levels, so I saw many possibilities. I'd always been interested in teaching grade three. So that had been one of my aims. I'd really wanted to switch from kindergarten to grade three, originally, but, I thought, well here's an opportunity to see the progression from age six to age eight. So it was a personal interest of mine. And then with the teaching techniques that we use now, it seemed like a very viable situation for myself. And then looking at the students that I did receive at this school, I thought it was great for them, because I had many children who were not functioning at a grade level, but were at different developmental levels and had different supports in their environment at home, and this really allowed them to be successful, which is ultimately what I want children to be in school. I want them to feel that they're learners and that they are successful.

I: So that's one of the major advantages - that it raises children's self-esteem to be in that kind of environment.

T: And it gives them an opportunity to nurture, to be a helper, and they learn to cooperate, and they can also pursue interests. If they're really interested in something that an older student is working on, they can join them and learn from each other, which is one of the greatest benefits, I think, because they do learn a lot from each other, and they're very proud of what they accomplish. Initially, I found the six-year olds coming into the one-two split were quite intimidated by the older children, because I think they were measuring what they were doing with what the older child could accomplish. So we had a talk about that, how all of us learn in different ways, and we all do things in our own way, and it was okay for them to write things the way they thought it should look rather than trying to spell everything perfect. And then after they realize that you're accepting of anything, they just tend to take off. But its that way every year. Children coming in are the ones paying the most attention to the older kids, so you have to do some things to integrate, to show them that its okay, that we don't expect you to be reading. But I found the same thing when I taught grade one. They thought that magical trip from the kindergarten room door to the grade one classroom would make them readers. Some would go

home discouraged the first day and tell their mother, "but I didn't learn to read."

I: Do you see any other advantages?

T: Well the fact that you get to keep your students for more than one year has been a definite advantage for me, and I think its been an advantage for them also, if you're compatible. If you're not compatible, then I could see you could have some problems, But I've had very good parental support from the children who are in their third year in the classroom. So that's also a big advantage. You don't have to get to know as many new faces. You have the support there of the people that you're familiar with, as you get to know the people who entering. So there are definite advantages. And I think its easier for parents, too, because they tend to approach me about concerns a little more readily.

I: Because you have a longer relationship with them?

T: That's right. Yes. You see them year after year. They may be more comfortable about sharing things and about asking questions about what you're doing in the classroom.

I: So some of your students are now in their third year with you.

T: And its been very interesting to watch the two boys (who've remained for the three years), because they've changed so much. Its amazing. I always tell people, even looking at the six-year olds at this time of year, I don't know when they learned to read and write. I know that they could all read and write when they came, but they just seemed to accelerate at some point and you don't realize it. We can't quite pinpoint how this opens up for them.

I: That's exciting. Have you encountered any problems going from a single grade to a multi-age setting?

T: I think my biggest problem was getting the resources together. That may really sound strange, but that is the biggest problem I have in coming to this setting. You know, you're in an unfamiliar setting. I've inherited a classroom which had nothing in it, except a stack of basal readers. So it meant building a library, and it meant ordering manipulatives that were going to meet the needs of children who are six to nine years of age, and it was just quite difficult to think in that broad range. What would be the best things to order? So I did a lot of garage sale shopping, and the books I just kept adding to.... I brought my own personal library in, and then I got books from the Public Library initially, and now I've built up a fairly good collection in my classroom. The resources, I think, were the most frustrating part.

I: Any other problems?

T: I think planning sometimes. Math, for one, is very difficult together because it is a progression. I find I've always had all three levels on my own because I haven't had an I.A.(instructional assistant) in the classroom to help me, so I guess the other resource that I'd like to have is an instructional assistant who would be here to help with.... So that's one of the frustrations.

I: You do have an instructional assistant, but she's here to work specifically with one child, and she's really needed at all times to be with that child. Is that right?

T: With a special needs student. Especially in something like math, because he doesn't like manipulatives, so she has to stay with him to prompt him to participate, and we are trying to include him in more small group activities, so he gets used to turn-taking and that sort of thing, but that wasn't there the first two years.

I: So, essentially, you're dealing with that math program on your own, and you're dealing with a number of groups at one time. Have you done anything specifically to develop your math program, or to work on it, to deal with the problem of accommodating the wide range?

T: Well a number of teachers in the multi-age took a math course last summer.

I: And was that helpful?

T: Yes, it was helpful. It gave a lot of good suggestions, quick activities that would include all different age levels. So you could pull the group together as a whole, and then work from there and that was very helpful. Other than that we're still working on putting together the kits.

I: When you talk about putting together kits, are you putting together kits that revolve around some aspect of mathematics, a math concept?

T: And that can be used as a progression, not necessarily targeting the curricular....

I: So the kit is designed to provide activities at a number of different levels related to a particular concept.

T: Mm hmm. That's the idea.

I: Are you working on that fairly independently, or are you working as a group of teachers?

T: I've been sharing with Amy, because she has a lot of kits that she's expanding, where she had all of the kits prepared for the grade one class, and now she's expanding on them. So we've shared some of that material, because we all had concerns. You know we all had our little parts, but its neat to see how other people expand on that. So you definitely need to talk to other people and gather material and information from them, and that's what I've doing with her.

I: That's interesting.

T: But we would like to start, I think, as a multi-age team developing some of these things so there's some continuity. Because, ideally, you keep students for three years or three or four, but there is some room for flexibility, in case you have a conflict with a parent or a child or something else. You know, they should be able to go to another multi-age classroom to carry on with the program. So that's why, I think, we're looking at something that would be a little more consistent from room to room.

I: Yes. That would be a real advantage.

T: That's long range.

I: If you were meeting with someone who was just beginning to teach in a multi-age program, would you have any words of

advice for them? What are some of the things that a teacher would need to know or be prepared for?

T: There are a hundred things, that you think you'd like to do again if you could start over again. I think one of the most important things is for you to get to know your students, take time to get to know the students, which means a lot of free choice or activity-based.... We call it activity time. At the start of every year I have a lot of activity time, just so I can observe and so they get a chance to get to know each other, see what the other person is able to do, and learn from each other, and that gives me a sense of what that child's interests are, how that child interacts, what kind of learning activities they like to choose, because another thing they've been doing in our school is learning styles and cooperative learning, and both of those were things that I tried to incorporate into my theme planning in the classroom, so that when I was doing teacher-directed things, you know, you included opportunities for cooperative learning types of activities, and exposed the children to the different styles of learning, so you're not always doing the same type of follow-up to every activity. There's more than one way to do a follow-up to a story that you've enjoyed. Which way would the child prefer to do their follow-up to this story? And, you see, some children are always choosing the dramatic things, and some children like to do the writing and the

retelling and things, and other children like to make puppets and models. So that was one of the things that I found, starting out, you had to give a lot of broad opportunities for them to express themselves in broad ways. You know, don't confine it too much.

I: So you need to give a fair bit of choice, and then that enables you to observe children and get to know something about them.

T: And I think they feel better with you getting to know them with something they're comfortable doing, and you're more affected when you do your other teacher-directed activities if you know what they enjoy doing. And then of course later on in the year, I sort of go through a cycle, so the activity becomes more, um.... We limit the choices, so that now they're made to choose things within the frame of fairy tales, for example. So it becomes more focused. Initially I don't have that same emphasis, because I want to get to know them and be free to do those things. Whereas later on, we get more focused and I'm looking for specific things.

I: So, your suggestion for someone who is just beginning is to get to know your students, to give them lots of choice at the beginning, and spend some time interacting and observing

and so on. Are there other things that are absolutely crucial to teaching in a multi-age program?

T: I think you have to talk to the parents of the children who are coming in, explain the way you teach and why you teach the way you do, and what the things are that you're looking for. I think that's one of the reasons why I've had a good rapport with the parents who, I've had for three years, because they told me that they don't mind doing things or letting their child do things if I explain why we're doing the things that we do. And I found them very supportive, and I think that's something that teachers sometimes take for granted, because we are so grounded in the way we see children learning that we forget that people who went to school when I did would not have learned this way. And you have to explain to them what is happening, and why you are doing it the way you do. That, and you have to get your administration on board first thing. I'm sure you wouldn't be involved in the program if your administration wasn't supportive. You have to do a lot of talking. I don't know. There are so many things you do as a beginning teacher no matter where you teach. I don't think its that different from starting a graded classroom. You have to be prepared for evaluation, keeping records, think about that.

I: Do you think that you've changed as a teacher, working in a multi-age setting?

T: I think I was very fortunate starting out in an activity-based kindergarten. That's been a real advantage for me. If anything, I've learned to modify or expand on activities, which is a real asset. I think if you don't have the background experience you sometimes don't see the possibilities, and you need to be shown the possibilities, sometimes. You have to make them aware of the different kinds of possibilities, even though they do learn a lot just by watching each other, but you don't want to leave it up to chance. I know I had one child in my class who's a great leader, and she can get everybody going which is excellent. You need very motivated people in the multi-age classroom - self-motivated learners is what I call them, and most children are if they're given the environment, and if they realize that you support them.

I also did some reading before I started. I read the material that you gave me. And that really helped me because it showed me the histor of education, how this is a very established way of learning, but because of society's values its changed, and we've taken bits of it and put it all over the place rather than leaving it as a unit. They've divided everybody into their graded slots, when it never started out that way.

A.M. and P.M. Classroom Observation

Date: May 26, 1992

Time: 8:30 a.m. to 4:00 p.m.

1. Rachel arrives at 8:30. We chat briefly. She begins to place name tags and reading folders on the tables. The reading folders each contain a book which the child has previously selected for buddy reading.

2. Mrs. W. (a pseudonym), the substitute instructional assistant arrives. (The regular instructional assistant is away sick on this day. Rachel does not think that this will make a difference in terms of my observation.) Rachel introduces Mrs. W. to me and spends a few minutes explaining to her what she will be required to do.

3. Mrs. W. has been in Rachel's class on previous occasions. She is required to work with a special needs child in Rachel's class.

4. At 8:55 the children enter, sit at tables, put on their name tags. (These are for the benefit of the substitute I.A. who does not know the children's names.) Some children have home reading folders which they place in a box near the door.

5. Rachel says, "I suppose all our jobs are done - the calendar, the fish?"

6. Two children get up and put dates on the calendar and two others feed the fish.

7. Rachel asks if anyone has Winnipeg Boys and Girls Club registrations. There is no response.

8. O'Canada comes over intercom.

9. Rachel says "Good morning children."

10. Rachel introduces me to class. I explain my purposes for observing.

11. Rachel Introduces Mrs. W. to the class. Her name is difficult to pronounce and Rachel has the children repeat it twice to get the correct pronunciation.

12. Rachel invites the children to go to the meeting area. They sit in a group on the rug.

13. Rachel asks if anyone is buying lunch. No response.

14. Rachel announces that they will have "buddy reading". She invites children to come and select names from a jar

in order to choose their partner. The partners leave the meeting area and take their reading folders with their books.

15. The children sit at various places around the room (on the floor and at tables) and read quietly to one another.

16. Rachel explains that at the beginning of the year the children were paired with grade five students for buddy reading. When they began to read with partners from the class, Rachel chose the partners. Now (at the end of the year) selection of partners is random.

17. The resource teacher enters and speaks briefly with Mrs. W. Together they begin assembling cards for what looks to be some type of game.

18. Rachel marks off an attendance sheet while the children are reading, and sends a child to the office with the sheet.

19. Rachel circulates around and listens to the children read to one another.

20. Rachel keeps the borrower's card from each child's book in a card pocket in her binder.

21. She says that some children also keep their own record of the books they've read in their reading folder. Rachel says that, knowing who chooses to keep a record, helps her to assess which children are self motivated, organized and independent.

22. The children appear to be absorbed in their reading. They listen attentively to one another.

23. Rachel writes the names of groups of children on the blackboard.

24. At 9:30 Rachel says, "Okay, children, we're reaching the end of buddy reading time. You can record your book if you wish. Please come and sit in the meeting area." The children gradually come to the meeting area.

25. Rachel holds up a large student made poster about the life cycle of the frog. She asks the student to read his poster to the class. Rachel asks him questions about it. (i.e.) "What is the word to describe change?" The child answers, "Metamorphosis."

26. Rachel talks about the differences between cycles and stages.

27. Rachel says to the child who is showing his poster, "I'm glad you figured that out."

28. Rachel leafs trough a pile of posters, saying, "I want to see what you can do." She says, "Oh, this looks interesting."

29. Rachel calls up another child and asks him to read his poster about the life cycle of a fish. The child complies. Rachel says, "Excellent!"

30. Rachel asks several more children to read their posters and she comments positively about their work.

31. Rachel points out that several children are not finished their posters and suggests some times when they could work on them.

32. Rachel says they are going to work on group projects morning. Four children are sent to work at a table at the back of the room with Mrs. W. and the resource teacher (who is still in the classroom).

33. One child whose group is working on a bird project suggests that he would like to go outside to look at birds. Rachel responds by saying that there is no adult to go out with him ,and that instead the whole class

could go out a bit early for recess and look for birds. She reminds them that there are lots of books about birds available in the classroom.

34. Rachel hands out books to the groups of children whose names are written on the blackboard. There are four groups and their projects are plants, birds, fish, and insects. The children go to various tables around the classroom.

35. Mrs. W. and the resource teacher take a fifth group to the reading corner. The resource teacher reads a book about the human body to this group of four children.

36. Rachel says that this is an independent time for the children. They join a group of their choice. They decide how they will share their project with the rest of the class.

37. Some children are reading, others writing (making books).

38. One group which is studying insects, has already made a three dimensional display of insects. They are now working on a book about insects.

39. Rachel says that the children have had a variety of experiences working together and sharing their work throughout the year. Now they are ready to make their own decisions about what they want to study, who they want to work with, and how they want to share what they've learned with others.

40. One group of three children is planting bean seeds as part of their study of plants.

41. The resource teacher and Mrs. W. move over to a table with three children from their group. The children work on an activity which is evidently a follow-up to the book that has been read. They cut out body part shapes from a ditto sheet and match them to shapes on a paper. (I assume that this is an activity to develop vocabulary.)

42. Rachel circulates around the room and talks to the children about their projects.

43. The plant group finishes planting their seeds. They water them and place them on the window sill. They sit together at a table and begin looking through books about plants.

44. One child is working alone on a project about fish. He is using a variety of books for his research. He is making a book about fish to share with the class.

45. The groups appear to be heterogeneous in terms of age.

46. At 10:00 another instructional assistant enters and quietly takes two children from Mrs. W.'s group out of the classroom for ESL instruction.

47. The resource teacher leaves. Mrs. W. continues to work with the one remaining child.

48. At 10:00 Rachel says, "You have five minutes to finish off and tidy up."

49. The children are slow to begin tidying up.

50. Rachel says, "Its good to see the children at the blue group table tidying up. Please sit at your group tables." The children begin to move much faster.

51. When everyone has returned to their group tables, Rachel says, "We're going out five minutes early to look for birds. Where should we go on the playground?" Several children respond with, "By the kindergarten door."

52. Rachel says, "Let's go quietly," and she leads the class through the school and out on to the playground.

53. Rachel and a small group of children look for birds (unsuccessfully) around the lone tree by the kindergarten door. The other children go and play on the equipment.

54. At 10:35 children from other classes begin to pour out on to the playground and Rachel and her small group decide to look for birds another day.

55. Rachel returns to the school. She stops in the hallway to chat briefly with several other teachers and then goes to the staffroom for coffee.

56. At 10:50 the bell rings and Rachel returns to the classroom.

57. When the children enter they sit in the meeting area.

58. Rachel sits in the meeting area with the children. She asks about a dispute over the soccer ball which had occurred at recess. Several children give their versions of what has happened. Rachel says, "This is more serious than I thought."

59. Rachel asks the children for suggestions as to how they might resolve the dispute over the soccer ball. Several children raise their hands and offer suggestions. With some input from Rachel, the group agrees on a solution for the next recess.

60. Mrs. W. sits at the back of the group and observes while Rachel is talking to the children.

61. Rachel says, "We usually have a story after recess." Today, however, she wants to take a few minutes to discuss how yesterday's story ended.

62. Rachel says, "By now you should be very good at mysteries."

63. Rachel asks the children what they thought about the ending. Several children raise their hands and respond.

64. The discussion ends and Rachel says, "We 're going to work on fractions today. She asks, "Who can tell me what a fraction is?"

65. Several children raise their hands and respond with specific answers such as 1/2 and 1/4.

66. Rachel prompts the children to come up with the correct definition.

67. Rachel says that they will be working on three activities related to fractions. One activity is new.

68. Rachel shows the children several paper circles which are divided into equal parts. She explains how each segment is a fraction of the whole. The children crowd around to see her demonstration.

69. Rachel says "You could make fractions with circles. So that's going to be one of the activities. So, what could you do with this, if you ended up at a table with these materials (circle tracers)." A child raises her hand and gives the correct response.

70. Rachel puts a step-by-step example of the circle activity on the blackboard. (The children trace circles, divide them into equal parts, colour a section and indicate what fraction of the whole it is.)

71. Rachel says, "Some of you still have a fraction booklet to work on."

72. Rachel discusses how 2/4 and 1/2 are the same.

73. Rachel says, Some of you were doing matching with Mrs. S. (the regular instructional assistant) the other day. Rachel gives a demonstration of this activity. (It involves dividing circles into sections of equal size, cutting out the sections, reconstructing the circle and pasting it into a booklet.) Rachel writes the directions for this activity on the board.

74. Rachel introduces the new activity. She draws four small squares on the blackboard and says, "We want to find 1/2 of four. She says, "How are we going to do this activity?"

75. Several children raise their hands. Rachel invites one child to come and show the rest of the class. The child draws a ring around two of the squares. Rachel demonstrates different ways they could divide the group of four squares in half.

76. Rachel says, "Do you guys understand this?" Some children say "yes" and some children say "no".

77. Rachel says, "Maybe I should do a demonstration." She draws six small circles on the blackboard. The task is to find one half of six. Rachel draws a ring around three of the circles.

78. Rachel asks, "Can anyone see another way I could circle it?" Several children volunteer to demonstrate different ways of dividing the configuration of circles in half. Rachel thanks them for their assistance.

79. Rachel says, "You've been a good audience. Let's get down to work."

80. Rachel passes out fraction booklets. She asks each child about his/her progress as she gives out the booklets.

81. The children take their booklets to the tables. Rachel asks a child to help her distribute a variety of materials to the children. These include tracers, rulers and attribute blocks. Scissors, glue, pencils and crayons are also available at all of the tables.

82. Rachel works with two children on the rug. They manipulate paper shapes which have been divided into fractions and Rachel discusses with them how to make 1/2, 1/3, 1/4, etc.

83. The fraction booklets are between five and eight pages long. A fraction is written at the top of each page. The children are at various stages in their fraction booklets. Different children are doing different activities in their booklets.

84. The children are very talkative, but everyone appears to be on task.

85. One child at a table near me asks another child to help him figure out how to divide his circle into six parts. (The child who is asked has successfully completed this activity in her booklet.) She says she won't help him, but she suggests some materials he might use to figure it out on his own. (Use the "thirds" circle.) He struggles with the problem, trying several things, and eventually solving the problem on his own.

86. At 11:40 Rachel says its tidy up time.

87. The children put their work away and line up by the door.

88. Rachel reminds them that tomorrow will be the bake sale and they need to remind their parents. (The purpose of the bake sale is to raise money to go to the Children's Festival.)

89. Rachel reminds the children that they will be going to gym and music after lunch.

90. At 11:45 the buzzer rings and the children leave.

91. Rachel excuses herself as she has a meeting with the other multi-age teachers at lunch time.

92. At 12:55 the children come into the classroom long enough for Rachel to take attendance and then they leave for gym and music.

93. Rachel has her weekly review meeting with the principal from 1:00 to 2:00 p.m. while the children are at gym and music.

94. At 2:00 the children return to the classroom. Mrs. W. accompanies the class. Rachel has still not returned from her meeting.

95. The children do not seem at all concerned that Rachel is not there. Mrs. W. does not say anything to them.

96. As the children enter, they take out their journals and begin to write. They chat quietly.

97. At 2:05 Rachel returns and says, "I'll give you another five minutes to finish journals and then we're going to work on our subtraction booklets."

98. Rachel gathers up the fraction booklets which are still on the table and begins to pass out subtraction booklets while the children are still writing.

99. Rachel stops and asks a child to read something he has written in his journal, because she doesn't understand it.

100. The children are quiet, on task.

101. The children's writing represents a wide range of development. Most children are writing in lined scribblers. A few are using an unlined scribblers. Some children are writing whole paragraphs, others just a line or two.

102. Rachel asks the children to finish writing in their journals and take out their math papers.

103. Rachel reminds the children to read over what they have written before putting their journal away.

104. The subtraction papers are at three different levels, ranging from single digit subtraction to double digit subtraction with borrowing.

105. Rachel explains to me that the children are very excited about these booklets because these are the first commercial math papers they have done this year.

106. Some children are still working on their journals. Others have started on their math booklets.

107. At 2:18 Rachel asks the children to line up for recess. While they are standing in line waiting for the buzzer to ring, Rachel leads them in reciting a poem which is on the bulletin board.

108. At 2:20 the recess buzzer rings and the children go outside.

109. I walk to the staff room with Rachel and Mrs. W. I ask Rachel about the children's journals while we have coffee.

110. Rachel says that the children write in their journals on Mondays, Wednesdays and Fridays. The journals are a personal form of writing. Rachel takes the journals home and writes a response to each child's entry.

111. Some children are not writing in a conventional form at the beginning of the year and Rachel asks them read their entries to her. She then records on a post-it note

what they have said and places the post-it notes in the journal.

112. The children are free to use their journal for whatever purpose they wish. Most children use the journals as a kind of personal diary. One child is using his journal to explore different genres of writing - poetry, narrative, etc.

113. At 2:35 the buzzer rings and we return to the classroom with the children.

114. The children continue working on their journals and subtraction papers for another ten minutes.

115. Some children are using number lines to solve their subtraction problems.

116. The children are very talkative and Rachel reminds them that, "This should be a quiet time when you are thinking about the problems in front of you."

117. One child leaves his table and visits with some children at another table. Rachel quietly asks him to return to his own table.

118. Another child comes to Rachel in tears and says that she can't write because she has a sore finger. Rachel examines the finger (which has no visible sign of injury) and suggests that the child return to her table and just read until the finger feels well enough to write. The child returns to her table but continues to be very weepy.

119. Rachel also circulates around, checking on children's progress and giving assistance when necessary.

120. Gradually the children settle down and become more involved in their work.

121. While the children are working, Rachel places home reading folders on the tables. She announces that, "Children with home reading folders may choose a book." About half of the children go to the reading center and choose a book.

122. At 2:45 Rachel directs the children to tidy up and come to the meeting area.

123. When everyone is seated on the rug, Rachel holds up a book and says that someone had asked her to read this particular book.

124. Rachel points out that this book is part of a series. (Rachel has evidently read other books from this series to the class.) Rachel draws their attention to the fact that this is a chapter book. She talks about the table of contents and the number of pages in the book.

125. Rachel reads the first chapter of the book. Most of the children appear to be quite interested in the book. (They sit quietly and look at Rachel while she is reading.) Two children at the back of the group do not appear to be listening. (They are looking around the room and they do not look at Rachel while she is reading.) They are quiet, however, and they do not disrupt the rest of the class.

126. The child with the sore finger sits and cries silently. Rachel notices her and stops the story. She suggests to the child that she should go and lie on the couch in the reading corner. The child complies, but she continues to cry.

127. Rachel periodically stops reading to ask questions or to discuss various aspects of the story. (i.e.) "The children in this story like to get up early. How many of you like to get up early.?" The children appear to be quite eager to share their opinions. At least half of

the children raise their hands and contribute to the discussion.

128. I am aware of the noise coming from the adjacent room. Rachel and the children do not appear to pay any attention to the noise.

129. At 3:05, when the story and discussion have ended, Rachel says, "Now we're going to work on our research project about snakes."

130. Each child is making a book about snakes.

131. Rachel reviews with the children how to organize their research books. She refers to a table of contents chart which is on the blackboard.

132. The children are required to: 1)copy the table of contents chart from the blackboard into their books; 2)write a rough draft and a final draft of the introduction; 3)develop the main body of the book based on categories such as habitat, food, young, etc.

133. Rachel distributes the booklets (which are partially finished) to the children.

134. Rachel places an organizational chart outlining the different categories which must be included in the booklet on each table.

135. Three children, who were away when the last snake book was read, take the book into the hall and read it together.

136. Rachel explains to me that this project developed because she had read several books about snakes to the class. The children had become quite interested in snakes and wanted to do a project about snakes.

137. The children talk quietly as they are working. They ask each other about the spelling of words, where to find information, etc.

138. Books about snakes are available on each table.

139. The children are at different stages in their research books. Some are just beginning. Others are working on second and third chapters.

140. There is a wide range of development represented in the children's work. Some are doing very simplistic drawings accompanied by a small amount of print. Other children

are making very detailed drawings and writing several pages of text.

141. Rachel moves around the classroom checking to see if children have understood the directions and/or if they need assistance. Most seem to be very clear about what to do and they are working quite independently.

142. The child on the couch has stopped crying. Rachel asks her, "How's your finger?" The child replies that, "It still hurts." Rachel says, "Why don't you come and show me what you did the last time, and we'll plan what you're going to do the next time." The child agrees. She goes to her table and shows her book to Rachel She appears to forget about her finger.

143. At 3:25 Rachel says, "Let's tidy up." The children put books, pencils and crayons away. They place their chairs on the tables. Rachel reminds them to leave their name tags on the tables.

144. Rachel says, "Come to the meeting area. We have a few things to talk about. Maybe we can sing a song."

145. When all of the children are at the meeting area, Rachel leads them in a rap style chant about an elephant.

146. Rachel draws their attention to a message on the board which says, "Bake Sale Tomorrow."

147. At 3:30 the buzzer rings and Rachel says, "Off you go now."

148. One child remains behind to show Rachel her doll. Rachel examines the doll and chats briefly with the child. The child leaves after a few minutes.

149. Rachel says that she usually stays and works after school until 5:00 or 5:30 p.m. She likes to do her planning and preparation after school rather than in the morning. When I leave at 4:00 p.m., Rachel is still working in the classroom.

Evaluation Interview

Date: July 6, 1992

I: Do you have any thoughts about evaluation in the multi-age program? Is it any different than evaluation in single grade classes?

T: The one thing that is very different is that you have the child with you for three years. I have had the opportunity to see the scope of development from age 6 to age 8 or 9. So when you report to parents, you have to be selective with your language. Teachers tend to generalize. You have to be more specific than you would if you had a child for only a year. You're really directing your attention to their progress over a period of time. Its a span in their life rather than just a year. So I find my reports are more detailed and descriptive, and also my observations of students. Its a continuum. They all don't come in at the beginning of the year, and I don't need to observe those same skills that I would in a single age class.

I: Yes. I can see that you would have a whole lot of information about many of the children that you would use as a starting point.

T: And its also interesting to see how a child responds to new children coming into the classroom. I can't always

predict who will work well with the new child entering, and who will not work well with that student. So I like to observe older and younger children together, keeping in mind that I know the older student much better than the younger student. I have a good sense of how they relate to their peers. So that's a real advantage for me as a teacher, because in September, I know two thirds of my class.

Other than that, I guess I'm always changing my methods of collecting information. I've used many different things over the last few years, and I'm sure I'll change them again in the fall. I still haven't perfected a system that keeps track of students as efficiently as I would like to. Its something that's still evolving.

I: Where shall we start? Would you like to talk first about how you collect data and then about the reporting process?

T: Well I think I'll just stick to this last year, collecting data, because I've done it differently throughout the three years. And this year I decided to zero in on specific areas in collecting information. I have a general format that I use during activity time or free play. And that's just collecting information about student interaction, student choices. Over a period of time, my plan books help me a lot, in that its the child's record of what they've done. I also chart those (books) to see which activities they choose, and whom they're interacting with.

Are they leading in that situation? Are they changing their interests over a period of time or are they staying in the same areas? This was a general observation sheet that was used during activity time. And I just kept these handy and whoever walks into my room.... I write the name of the student that I want them to observe. So its not only myself collecting information. Its the instructional assistants, the resource teachers, any body in the school. And then I cut the sheets apart. You can see they're in sections. I have a binder with the kids' names, and they go in there. I tape them in.

This binder is used for my observations in specific areas. I find that I really need to make time to listen to kids read in order to keep track of their development. So what I did this year was I took a file folder and divided it up with the names in it, and I used post-it notes. And in that way, I can see who I have not met with, and who I still need to see. And when the folder was filled I transferred the post-it notes into this binder here. And when everybody has a note, I know I've gone through the cycle once.

I: And do you have other data in here about reading, as well?

T: Well, just buddy reading. I had my students initially reading with a grade five class. And the instructional assistant and I would sit and listen to the children to see

how they were getting along with their buddy, to see if they could sit there and read. And we found that the children were very willing to read.

Actually, there's another thing, and that's "Reader's Chair". And "Reader's Chair" also has to have a book of practice. So I could take these books and put them in the children's reading chair folder, because then they practice the book with me and then they're ready to present.

I: So "Reader's Chair" is when a child prepares something to read and then reads to the class.

T: Yes. They practice their book and they read to their peers and we have a discussion about their book after they've presented.

And I did the same thing in math with a file folder. I observe them using manipulatives, as they're working in small groups. And then its strictly play. I record their language. I don't interact with them when I make those observations, even though its hard not to do that. Post-it notes are wonderful! I like being able to see who I have to work with.

I: So that's your reading system. And is this the binder that has the library card pocket system in it?

T: Oh yes. This is the binder that has everything in it. For buddy reading, they put their cards in here for their books. This is one way of keeping track of all those little post-it notes. I have different coloured loose-leaf for each part of the reading program.

And another thing that Amy shared with me this year, and I'm trying to keep up with it, is doing a self report with the child. So they have copies of these in their scrapbooks. This year we kept scrapbooks and folders in big manila tag folders. And I got that idea from the kindergarten teacher. And the big folders had their year's work in them. At the end of the year it was great because we'd go through them and we had everything. We did a reading knowledge inventory. We used books and that was included in the folder and these reports were included, as well as their daily work.

I: So, they don't take any of their work home?

T: No. They share it with their parents. This year I encouraged my students to join their parents for parent interviews. And during that time, they told their parents what they had done that term. It got to a point where I would give them their folder and they could go through that while I was finishing my interview (with the previous student and parents) , because it takes children a long time to share something. And they know a lot about what they've

done with that product. Having the child at the interview was great! And if I needed to speak to the parents privately, I would just ask the child to wait in the hall.

I: How long were your interviews?

T: I only had about twenty minutes. The first time I did that, I had three sets of parents and children in the classroom at the same time, and everyone was at a different stage in their interview. And it got a little mind-boggling. So, the next time around I tried to be more organized.

I found in my interviews with the parent and the child, it was more effective for a child to explain to a parent what they did with a particular piece of work than it was for me to tell the parent, because the parent understands the child's language, because they talk to them every day. And I was really pleased to see how well the students could express themselves, especially the older children. They really gave their parents a sense of what knowledge they have about their work.

We also kept a small folder that we filed journals in, and special stories that they had done in their writing folder that they had published, were included in that as well.

The only thing was, the folders were getting so full by the end of the year, that I was having problems storing them, because we have such a limited storage space in our

classrooms. So, I had these big boxes sitting around on the floor with each child's folder in them.

I: And then they take everything home at the end of the year?

T: Oh yes. And they were very proud when they carried their big folder out the door.

Personally, I'm the kind of person who likes to collect things. I would love to have a child's work for three years. I tend to get selfish that way. I think.... Oh, I wish I could keep one journal from the beginning of each year, for my own folder.

I: Now, they have large folders, and then they also have scrapbooks. What goes into the scrapbook?

T: Well the scrapbook is actually in the folder. And in the scrapbook we staple examples of their work. The first term I will organize the scrapbook for the child. So, they get a sense of what it is to collect information and how we display it for others. And then after that they will be responsible for putting information in the scrapbook , which was quite interesting. Because you get to see who really knows how to organize information. With the older children, I wanted it in chronological sequence. So, what did you do first, and so on? So they had to look at dates and try to

organize it. Some children would have everything strewn all over the floor all around them. And others were busy.... They had laid everything out and collected it in a pile and inserted it in order. And then there were others who just couldn't manage and you had to give them a hand, because they didn't know where to begin. Because you have the three different levels, some of the older children, when they had finished organizing their own work, would volunteer to help a younger child. That was nice to see. Again they get that sense that "I'm a helper."

But I like this idea that Amy showed me (self evaluation sheet). And you know, children are very honest when they evaluate themselves, and when you get them to reflect on what they've been doing. And also, I made them aware that evaluation is a way of keeping track of things that we need to work on as well as things we've accomplished. But its okay if you don't do everything perfectly as long as you're growing and learning.

I: What about writing?

T: I keep track of, first of all, their product which is in their writing folder. And their folders have "finished", "unfinished" and ongoing things in them. I didn't keep any separate notes. I would just take their folders out and in that way I had the information I needed.

I do keep little sheets in the folders, comment sheets that the child comments on. But, I don't have any separate system other than what the child is aware of.

I: So, when you're looking at writing do you look at samples outside of their writing folders?

T: Oh, yes. Their journals were great, just a wonderful collection. And their plan books. And also when you're working with them, editing things that they want to publish. You learn a lot. Who's aware of sentence structure. Who knows which punctuation to apply when. And we did minimal cue and the daily message, and all of that together, the first term.

But that sort of changes. I guess I'm not consistent that way, in that I'll do something for a full year. I find with the three year program, I usually begin my year in the same way where I do a lot of whole group things. But then I tend to zero in on groups of kids, because while the children were doing daily message, the seven year olds were doing minimal cue and the eight year olds were doing daily edit. I expected them (the seven and eight year olds) to be able to work independently or they could work in a group.

And I have my writer's workshop at least three times a week for at least an hour, and a half hour of author's chair.

I: Do you use any particular guides, when you're looking at development?

T: When I'm evaluating the child's work?

I: Yes.

T: The principal gave us wonderful stuff for evaluating in the three year program. And I always use that guide. I keep everything together in one place and then when its time to evaluate things, I can just open it up and....

I: Is this from the B.C. Primary Program Document?

T: Yes. And here's another great assessment strategy.

I: Oh, yes. This is from the London Board of Education Document.

T: Its a continuum and its just great, because it gives you all the stages and the things to look for in those stages. So I think its a very valuable tool for all teachers. And you can see, they include the file folder with the post-its. I also use some material from a book called "The Child-Centred Activity Based Classroom".

And in that London document they even give you a guide about what kind of samples to put in, which I thought was

great. And I tried to follow this when they did something and filed it in their folders. I tried to make sure I was including these things. So that's why the folder, as much as I thought this is so unmanageable. There were other aspects that outweighed the disadvantages for me.

And here are samples of my last three report cards.

I: Do you think you're going bac to this one, then?

T: Oh yes. This is my main one. I like this format because it shows parents what my expectations are in those areas, what the curriculum is focusing on.

I have samples of each curriculum area from _____ School Division, because they have taken each subject area and made a continuum for primary. So, that's really been helpful, too. Its probably outdated now, in that the science has been changed and math is presently under revision. Those things will have to be changed. But I found it helpful in language arts.

And then what I had on the original here.... Parents were supposed to write a comment and return it and the child and the parent signed the report. And I found that I only got about eight out of nineteen back. Even though both parties would sign it, and there would seldom be a comment. So, on my next one I just chose not to include that. I thought that maybe coming to the interview with the parent was sufficient.

When the multi-age program began in our school, I sensed that there were parents who had a lot concerns about this. And I thought this is one way for them to respond to it on a term basis, about concerns they would have about their child or the program. And they could voice these concerns at an appropriate time. They could write this down before they came to the interview, so that then we could discuss it. That was another reason for including that. I always like to encourage them to interact with me.

I've gone through a lot of different stages. Last year my whole program was themes and theme letters that went home to parents, till I couldn't keep up with that on a regular basis. There wasn't enough time to work it in.

I: So you've stopped that newsletter type of thing?

T: And I put a cover letter in with the report card.

I: Just a general sort of letter.... These are some of the things we've done this term?

T: Yes.

I: Do you comment on every one of these points in the report card?

T: Oh, no. Its different for different children. I'll show you some examples. Now this is my special needs student. His report is usually very detailed because we keep such accurate information on his progress. I'm not saying my other information isn't accurate, but we don't record as frequently about other children. You can fit a lot on to these report cards. And doing it on the computer you can adjust the lines.

This first report card didn't work for me at all. I was struggling with that. One thing that I found really helpful.... When I first came to this school, the principal compiled an assessment folder, K to nine, and you got to see your colleagues' evaluation system. And that was really a good way to stimulate my own thinking about what I felt comfortable with. I would look at a format and think "That looks great, but I couldn't do that, or I couldn't be that detailed, or I couldn't be that global in my comments." I'm not a person who has a natural ability to write, so I need something to generate....

The one thing that I also included instead of "grade" was "year in program." Because I had parents who would say to me, "Is my child in grade two now? What are you doing with him?" And I said, "Well he's not in grade two because all of the children in our classroom work on the same themes. But yes, we cover grade two material, and with your child being in the second year, if you want to say he's in grade two, that's fine, but in my classroom he's in the

second year of the program. And he may be doing grade three things this year, as far as content goes." So that was the reason for including that because I have a lot of questions.

Amy

Initial Interview

Date: April 29, 1992

I: Could you tell me a bit about your background as a teacher. I think that's important in understanding why you chose to work in a multi-age classroom.

T: I don't remember the exact number of years of experience, but I've taught nursery school for a few years, and I've taught kindergarten, grade 1, and grade 3. I haven't taught grade 2 and all my experience has been at the primary level.

I: So, nursery, kindergarten, one and three. Did you do the early childhood course, then?

T: No, it wasn't in existence then.

I: Oh, that's right. Of course.

T: But then once I worked on my degree in my pre master's, I focused on some early years courses. Language arts was actually my major area. But again, I focused on language arts in early years. And I've taught preprimary, which is kind of a contradiction to what we're doing, but it helped me to come to an understanding of what we're doing now.

I: I understand. At one time I thought that was a really good thing to do. Now what about multi-age grouping? This is what I want to get at with this study. Why, when the research tells us that the majority of teachers view multi-age grouping somewhat negatively, why is there this little of group of teachers who want to teach in a multi-age classroom?

T: Who feel differently. I certainly wasn't part of the spark that got this going. But when I heard that such a thing was in existence, I was looking for a change last year, and I didn't think there was any possibility. I thought that whoever had set this up, the same group of people would carry the thing through, and that there wouldn't be new people coming and going. And then when I heard that a new classroom had been added, and in fact that they would be looking for a teacher, I phoned the principal immediately, and I've always been really frustrated. I feel that we always talk to parents and amongst each other about children developing at their own rates, and all the things we know about how children learn. You tell people not to worry. All these things will fall in place. And then we lock-step children into grades, which is a complete contradiction of what we know about how children develop. So for me, I thought that was a perfect answer to that dilemma.

And when I was referring earlier to that preprimary situation, that was a situation where you were giving children an extra year after kindergarten before entering grade one, because things that we deemed important weren't in place, which is again a contradiction

I: So it stemmed really from your belief system about how children learn.

T: Yes. The other element was that I had always taught in the suburbs, and I was really looking for a change that offered the multi-age component, as well teaching in an entirely different kind of community, and that sort of had an attraction for me.

I: What has been the most difficult thing about getting going or switching over from a single grade to a multi-grade?

T: You know I haven't found it difficult at all, except in one area and that's math. All the other things, if you're operating an activity-based classroom, if you're using whole language in your classroom, those things happen within a grade level, regardless of the age of the children or the labels you attach to them. But math was one area that I've really had to wrestle with, because you'll have children at one end who perhaps can't count five objects, and children

at the other end who can abstract multiplication concepts. And so that for me has been a challenge. I think I'm working it through, and I'm pleased with how I'm doing, but I still have lots of room to grow in that area, and again its using activity-based math manipulatives that can do that. And it would be easy to do if you ran off a pile of workbook pages, but that's not how I teach. And I think there are some people have ended up solving the problem by doing that, and that's been such a wrestle for me because I refuse to do that and so I've really had to become resourceful in designing lots of manipulative activities that can challenge all of
the children.

I: So in dealing with the math, you've gone back to what you know about how children learn, and looked at the children themselves and tried to develop your own unique program.

T: Yes. I've taken Math Their Way over a summer, and that's sort of a basis for where I've started off. Grade one is my most recent experience, so I've been using that in grade one. I've really had to pull lots of resources to try to find ways..... I really think, you see, lots of kids that know how to fill in math sheets and really don't understand the concepts underlying those, and I'm speaking also of the older children. So you can see children filling in

those..... They know that three times four is twelve or five times two is ten, but if you ask
them with objects to show you what that means, they don't know. Its just a rote learning. And even myself, when I was taking that math course, I'd never felt that math was a strength, and its never been a subject that I loved teaching until I went through that process myself, and all these lights kept going on.... even with very basic mathematical concepts. And there's certainly ways of challenging. There are all sorts of problem solving situations that can be set up for children to really
challenge themselves.

I: So day-to-day kinds of things offer lots of opportunities for problem solving.

T: In all aspects of learning really. And that's another....I don't know if that has anything to do with multi-age or teaching philosophy, but the idea of.... I had a student teacher in my classroom, so we've had lots of conversations about the teacher relinquishing the control. And the children right now are working on research projects on assorted animals, and this student teacher thought that perhaps if she designed the books
for them, and gave them the headings as to what should be under each heading, it would help them organize those books, and I'm feeling that the children should figure out....

We're wanting to read them lots of books, and talk about how books are put together, and how research books are different from fiction books, but I'm wanting the children to solve the problem of how they're going to organize their book in an organized way so that people can make sense of it. So you're throwing the problem to them. That's problem solving. Its got nothing to do with math, but its just a day-to-day kind of problem. You know she wanted to organize it, so it would help them, but that's giving the problem back to the children, not the teacher solving the problem.

And we've run into all kinds of situations like that. Another perfect example.... She's doing this unit on animal groups. I had been away one day, and I came back the next day and asked how her lesson had gone, and she said it was just great. She was teaching the children to sort and categorize, the goal being you wanted the children to come an understanding that scientists organize animals in certain groups for specific reasons. So you start off with very basic sorting and categorizing. Well the children in my class have lots of experience with that sort of thing. But while she was there, they had decided on sorting by large and small. She thought the lesson went wonderfully. It was so easy, and everybody knew it and understood it.

Of course to me it was a useless lesson. They already know big and small. It was a class decision apparently, and of course everything went very smoothly. So then, I said,

wait a minute here, you know. So then she did another lesson that she thought just a great flop, and I thought was a great success, and the reason was that they were given all these pictures of animals and they had to make six categories. Because we were wanting them to come up with fish, amphibians, reptiles, etc. We had sort of this goal in mind, but you're not wanting to give the kids the information, you're wanting them to come to some discovery themselves. And they really had a very difficult time thinking of ways to sort those animals. But I thought it was a great success, because I think learning happens when you have that disequilibrium, and they don't know how to do it, and they have to talk to each other about it, and come up with many reasons and groupings, none of which we had even thought of, you know. You can't have that preconceived idea of what you
want. They came up with their own strategies and reasons, and she thought that they were confused, and there was lots of talking and frustration. And I thought that was really wonderful because that's learning.

I: Its not nice and tidy. Its quite messy.

T: Exactly, exactly. And that should be whether classes are grade divided or multi-age. But the advantage in the multi-age, is that you have children with perhaps more sophisticated understandings of some of those things. And

the younger children have less understanding of those things, and kids have to explain their reasons for and why and help each other, and all that dialogue that goes on at a much broader range.

I: So that's one of the advantages that you see then for multi-age?

T: Yes.

I: What are some of the other advantages you see in a multi-age classroom?

T: Another advantage to me is just the personal skills they're learning as far being helpful of each other, trying to sort of have a community of learners, that we're all teachers. That's again perhaps not just in multi-age, but in all classrooms.

I: Is it easier to facilitate that in a multi-age classroom than it is a single grade?

T: Uh mmm. Just the whole idea when I was talking about math earlier.... Children often know the answer, but don't know how to get there, and if you're helping another child you have to explain the process to them and help them through the process. And I think there's learning in that situation

for the teacher-child as well, because they're needing to clarify and verbalize how they came to that answer.

I: Are there any other advantages then, that you see to multi-age grouping?

T: Well, I think that children feel more successful because they're not looking at themselves as a bunch of six-year olds and knowing that these six-year olds are very successful at what they're doing and these aren't. They're feeling good about whatever it is they're doing, because that whole comparison element seems to be eliminated. Although there are eight-year olds doing more sophisticated things in the classroom than perhaps six-year olds are, you tend to be more comparative when you're in with a group that's all your own age. I should have been thinking about this more. I'll think about it when I'm driving home in the car, about things I should have said.

I: Well its not your last and final chance. We'll Probably meet at least once more. I'd like to share with you the observations from your classroom, and I'll share with you the transcript of this tape, and if you want to add things to it that's fine.

All right then, so the advantages that you've suggested are that it provides opportunities for that dialogue and interaction between children at various levels of

understanding, and that it enhances personal skills, and that it eliminates some of that comparison that you find in a single grade classroom.

T: And the other point that I brought up at the beginning, the whole idea that it offers a situation where each child is able to function at his/her own developmental level without having the frustrations of curriculums at each grade level. So if you're not ready to do two-digit addition when you're at whatever age you're supposed to be doing that at, there's no frustration for the student. They're allowed to work through those stages as they're ready, and work on to the next.

I: So curriculum really derives from the child, rather than from some external....

T: Exactly. Its child-centred rather than curriculum-centred.

I: Do you think there are any disadvantages to multi-age grouping?

T: I have to say for myself, having taught grade one for a number of years, my biggest concern is the oldest children. If I were placed in a grade three classroom I'd sort of feel the same way. My concern is always that they're being

challenged. I don't know if that's common to everybody else. And again their parents also have that very same concern, and to reassure parents that indeed everybody is being challenged. Another disadvantage, frustration, and I suppose that would be for all teachers, but multi-age perhaps more so is that you need to have the parents' support, and in order to do that they need to understand what it is that you're doing and why you're doing it, because it is a little difficult to do something new, because it just immediately raises questions and concerns, and people think you're on a band wagon and all that sort of thing. So I think its really important for the teacher to have a real sound knowledge of child development, and be able to convey that to parents, and a sound knowledge of how children learn, and I think that perhaps not all teachers are not competent in conveying that to parents, and that's why we need consultants to help us with those kinds of things. And you tend to hear, as you do in local politics even, you tend to hear the few negatives rather than the many supporters. I don't know if they're being apathetic. If things are fine, you don't hear from them, but if there's a problem then you hear from them, or sometimes its used as the reason for the problem, and in fact its not the case at all.

I did read the documents out of British Columbia, and another document out of Saskatchewan that looked at test results on children that in fact said they performed better in a multi-age situation. Now I'm not sure what those tests

were, and how that was all measured. I have friends who teach grade three, which are the age of the oldest kids, and when I talk to them about the kind of things that they're doing, I'm feeling that my children can hold their own very well. Like right now we're doing research projects, and of course I have different expectations of some children than others, and not necessarily the older ones. You can sort of look at what kids are able to do. I have some six-year olds who are using the Table of Contents in their research, and some who are grade two age who aren't.

I: You said that its important to get parental support. Are you generally feeling fairly comfortable with the support that you have received this year?

T: By that, I think our whole education system has changed over the years tremendously, and I think we haven't kept our community as informed. I'm not sure not sure what the reason for that is, but its naturally understandable. All parents have gone to school, and they all have a understanding of what school was like, and when they come to our classrooms and see such changes and they have so many questions. I have had very positive reactions, but I have had questions by parents, and I think that's great that they're asking questions, because then we can have a dialogue and communicate and then there's an understanding. But its when

there isn't an understanding, sometimes, I think that problems arise.

I: If you were talking to someone else who was attempting to start a multi-age classroom, would you have some words of wisdom, some advice for them? You've already mentioned parental support. Are there other things as well?

T: I think that you have to have activity-based learning in place, or value that, that that's a good way for children to learn. I think you have to value the use of whole language, that children write and read at their own levels, and you need to have a good understanding of how children learn language, written and spoken, and language and books. I'm not sounding very articulate here, when I think that this is being taped.

I: Well, its four-thirty in the afternoon.

T: So that has to be in place first.

I: A good understanding of child development.

T: Yes. If that isn't there, then I could see why you would perhaps not choose to go that way.

I: Do you think you've changed very much as a teacher, or do you think you're doing very similar things to what you were doing last year?

T: No, I know I've changed, but I'm not sure if its because of multi-age or if its because of the community in which I'm working. Those two factors have been very dramatic changes for me, and its hard almost to separate the two. To be very honest, its probably more the community that's made me look at things differently, because I could see having multi-age in any community. I would love to have tried that where I was in the past. In a sense, any classroom is a multi-age classroom, in the sense of the range you have in a classroom. Its just spread a little further at each end.

Another thing.... I feel I have supports in this school that I've not had before, that have removed the hoops for me to jump through, one of those hoops being curriculum, goals, objectives, and all that stuff that in a sense inhibits learning because its coming from beyond the child. The resource people and the administration at this school have removed those hoops I feel. I've always felt really frustrated. I don't know if that's because of the administration I've worked under, what the reason for that is, but I've been really frustrated by curriculums, in that they've confined learning, and I feel those doors have been opened for the children to have some control, or lots of

control over where their learning goes and how we plan for learning in our classroom.

I: I think you've answered all of my questions, sometimes indirectly. Is there anything else that you'd like to add to this or that I haven't asked you, that you think should be included in this discussion?

T: I've worked more collaboratively with my colleagues in the past, and I look forward to having more of that. We're just all in the learning stages together, and it is more of that, I guess is what I'm saying. I'm used to working as part of a team and I think I'm more inspired or I function better when I'm batting ideas around, and I think that's in the developing stages. I think what happens when people go into a situation like this, you just sort of survive in your own little classroom. So, I think that all grows along with it, that whole collaborative thing.

A.M. Classroom Observation

Date: May 21, 1992

Time: 8:45 A.M.. to 11:45 A.M.

The morning and afternoon observations of Amy's classroom took place on separate days. Amy felt that these two half days were typical of the schedule which she normally followed.

1. I arrive in Amy's classroom at about 8:40 and we chat briefly before the children arrive. Amy has been in the school for about half an hour. She explains that she likes to arrive early enough to meet with other teachers in the staff room for coffee, before coming down to her classroom.

2. At 8:45 a.m. the children begin to enter the classroom, a few at a time. Most stop and speak briefly to Amy. Some return permission slips for a field trip which is planned for the following week.

3. All of the children have home reading folders which they take to their tables as they sit down.

4. Some children bring papers on which there is a calendar and a weather chart, and they begin to mark in the date and record the weather. Other children simply pick up a

blank piece of paper and begin to colour a picture with the crayons and coloured pencils which are on each table.

5. Nancy (a pseudonym), the instructional assistant, enters the room and begins to observe and take notes. She has been assigned to work with the special needs child in the classroom.

6. A mother comes into the classroom with her child. She speaks very little English, and appears to be somewhat confused about the upcoming field trip.

7. Amy tries to communicate with the mother in a number of ways: she speaks slowly and directly to her; she also tries to communicate with her by having the child translate from English to Spanish.

8. Amy squats down so that she is speaking to the child at her own level. The child, however, seems to be only slightly more fluent in English than her mother, and it is several minutes before the mother appears to understand what Amy is saying, and is satisfied with the explanation.

9. While this is happening, another instructional assistant comes into the classroom and sits quietly at the back of the room.

10. Amy announces, "If anyone has a white or yellow note, please bring it back."

11. The children who are seated, chat quietly amongst themselves as they wait for the others to join them. The talkin stops when announcements come over the intercom. Announcements are followed by O'Canada. The children and teachers stand and sing along.

12. As soon as O'Canada has ended the children leave their tables and move over to the "sharing corner" where they sit on the rug. Two children do not join the others, but go to the computer centre where they begin playing a computer game.

13. Amy sits on a small chair at the front of the group. She again reminds the children to bring back their permission slips if they have not already done so. She also reminds them that they will be participating in a "special event" this afternoon. The special event will be an opportunity to work with an "artist in the school" who will be making hats with them.

14. Amy introduces me to the children and tells them that I will be visiting in the classroom this morning. I show

them my note pad and explain that I will be writing about the things that they do during the morning.

15. Following my introduction, Amy proceeds with roll call. She calls out each child's name, and the children respond with "good morning" or "here". She asks if anyone is ordering lunch. When there is no response, she asks two children who have been designated as "helpers' to take the attendance sheet to the office.

16. At this point, Amy notices that a child at the back of the group has begun to play with some of the materials in a "take-apart" box which is near him. (The "take-apart" box contains old appliances such as toasters and radios which the children can dismantle with screwdrivers and pliers.) Amy asks the child to move closer to the front of the group so that he won't be "tempted by the take-apart box". The child complies with her request. This is done quickly and quietly on the part of both teacher and child.

17. On the bulletin board behind Amy is a tally of the days that the children have been at school during the current month. The children count out the days with Amy as she points to the tally marks.

18. She then directs their attention to the calendar and talks about odd and even numbers. She invites a child to come up and read the sign beside the calendar - "yesterday was...., today is ...., tomorrow will be....".

19. Around the top of the bulletin board is a number line which indicates the number of days that the children have been at school during the year. Today is Day 157 and Amy asks how many hundreds, tens and ones this represents. The children put up their hands and respond with the appropriate answers when called upon.

20. Amy then asks, "What would ten less than 157 be?" Again, many of the children respond by raising their hand. Once the correct answer is given, Amy continues to extend the discussion by again asking, "What would ten less than 147 be?" She continues in this vein until they reach 77.

21. Most of the children have become quite involved in this exercise . Many wave their hands excitedly wanting to give their answer. There is quite a lot of discussion about the answers. When they reach 77, Amy asks what these numbers have in common ("What is the same about them?"). After some debate they agree that they all end in seven.

22. Amy then turns the conversation to a discussion of money. She asks, "How much money do we have?" A child responds with, "one dollar and fifty-seven cents." I realize that they are converting 157 (today's number on the number line) into money.

23. Amy asks them to describe $1.57 in another way. They respond with several suggestions (e.g. six quarters and seven pennies, one hundred and fifty pennies, etc.). She then asks, "How many dimes, how many nickels?" These questions generate further discussion, and after several wrong answers are given, the children eventually come up with the correct answers.

24. Following the math discussion, Amy selects a story and introduces it to the children. She first explains why she has chosen this story. (It is related to the current theme which the children have been studying.)

25. She points out that this book has won an award (the Newberry Medal), and she shows the children the medal which is on the jacket of the book. She also explains that this book is non-fiction and she briefly discusses the difference between fiction and non-fiction books.

26. Amy then opens the book to the title page and asks, "What's this page called?" A number of children raise

their hands. Amy calls upon a child who responds with the appropriate answer. This exercise is again repeated when she turns to the dedication page of the book. She then reads out the names of the author and the illustrator, and briefly engages the children in a discussion about the illustrations on the inside cover of the book.

27. Before beginning to read, Amy says to the group, "Make sure you're sitting comfortably so you can see."

28. She also asks one child to move. (Although this child has not been noticeably disruptive, she does not appear to be attending to the conversation. i.e. She rarely focuses on the teacher, but rather spends most of her time looking at the other children. Occasionally she whispers something to another child.) Amy says to a child who is sitting beside her, "D. (pseudonym), you need to help M. (pseudonym) if she's having trouble concentrating."

29. Amy begins to read, and the children listen attentively. She reads with a great deal of expression, stopping occasionally to make a comment or to ask a question.

30. While Amy is reading, both of the instructional assistants sit on chairs at the back of the group and observe.

31. During the story, the two children who are working at the computer, become quite engaged in the game they are playing, and forgetting themselves, begin to speak in increasingly louder tones. Amy stops reading and reminds them that they must be very quiet during the story.

32. They lower their voices briefly, but soon appear to forget and once again begin to speak in loud tones. This time the instructional assistant speaks quietly to them and they once again lower their voices.

33. The other children do not appear to be distracted by their conversation, as they listen attentively to the story.

34. When Amy has finished reading, she invites the children to respond to the story. Several children share comments with the rest of the group.

35. When the story and discussion are finished, Amy announces, "You're going to read your home reading with a partner. Try and find a different partner today."

36. The children leave the sharing corner and take their books from their home reading folders. Most find a partner and quickly begin to read.

37. Five children do not read with a partner, but instead write in response logs about the books they have read at home.

38. At this point, the two children who have been working at the computer centre join the others.

39. The transition is made fairly quickly and soon everyone is engaged in reading, or in writing in their response logs. Most children sit at tables. Two children sit on the floor at the back of the room.

40. Amy acts as a reading partner for a child who does not have a partner.

41. All of the children appear to be engaged in the task. There is a quiet hum in the classroom as the children read to each other. Some children talk to their partners with obvious interest and enthusiasm about the books they have read.

42. As the children finish their reading, they put away their books and take out project books or writing folders. This is done without any direction from the teacher. It would seem that this is part of their daily routine.

43. Some children are writing and illustrating books about animals. Other children have writing folders and are writing on topics of their choice. Still others are conducting research by looking through books for information related to their topic. One child dictates her story to the instructional assistant.

44. The children are writing at a number of different levels. Some are printing two or three sentences which are full of invented spellings. Other children are producing longer, more sophisticated pieces of writing, and using more conventional spellings.

45. They use a variety of types of paper, both lined and unlined, and some children make their own lines on the paper.

46. In the course of moving from the reading activity to the writing activity, one group of four children gathers at a table where some bean seeds have been planted. There is some discussion about who has had a turn to plant seeds and how long it will take for the seeds to grow.

47. During the writing time, Amy moves from table to table discussing with children their current piece of writing.

48. The discussions are collaborative in nature. The children read what they have written and she asks them questions and provides suggestions.

49. Periodically children come to Amy with their own questions or with a completed piece of writing.

50. The children seem to have a very strong sense of ownership of their writing. Amy fosters this ownership by encouraging children to evaluate their own work, and by encouraging them to solve their own problems whenever possible.

51. There is a considerable amount of talk during the writing time as children ask for and give each other help in spelling words, illustrating stories, and researching topics.

52. All of the children appear to be actively engaged in some aspect of the writing process, and there is a sense of purpose and industry in the classroom.

53. At 10:30 Amy announces, "Boys and girls, its time to put our writing away and get ready for recess." The children put their books and folders away and line up at the door.

54. The buzzer rings. When everyone is in line, Amy indicates that they may leave, and they file out.

55. At this point both of the instructional assistants have left the classroom, and Amy joins them in the staff room for coffee.

56. At 10:50 the buzzer rings and Amy leaves the staff room and returns to the classroom.

57. The children file into the classroom and sit on the rug in the sharing corner.

58. Amy sits on a chair at the back of the group.

59. She invites one of the children to sit in the "author's chair" and read his research book about grasshoppers.

60. The child reads a page at a time, showing the illustrations on each page.

61. The children appear to be quite interested, and when he is finished everyone claps. The children then put up their hands and ask him several questions to which he responds.

62. When the questions have been answered, Amy announces, "We're going to do activity centres."

63. She begins by asking, "Who did planting centres yesterday?" Several children put up their hands, and they are paired with children who have not had a turn to plant bean seeds. In all, six children go to the planting centre.

64. Amy then asks, "Who did skipping at recess?" The children who raise their hand are the next to choose centres. Amy continues to select children to go to activities on the basis of their recess activities.

65. Three children choose to work with marbles. They manipulate the marbles in a specially constructed box which requires them to balance a certain number of marbles on each side. They also make ramps with the blocks and roll the marbles down the ramps.

66. One child is working at the take-apart centre, dismantling various appliances.

67. Two more children work at a table with plasticene.

68. One child is dressing up at a dramatic play centre, and two children make patterns by stringing beads.

69. Two children choose to work at a construction centre where they use junk materials (egg cartons, toilet rolls, styrofoam trays, etc.) to put together various "creations."

70. Three children go to the reading corner where they begin to rehearse for a puppet show which will be based on a book they have read. (The puppets are conveniently stored in the reading centre.)

71. One child chooses to continue the writing activity he had been working on earlier in the morning.

72. As the children at the planting centre finish their work, they join the others at various centres around the room.

73. Most children remain with the activity they have chosen, but a few change activities at some point during the morning.

74. During the activity time, which lasts for approximately half an hour, Amy circulates about the classroom. She is able to get to most of the centres during the morning and she observes and engages the children in conversations about their work.

75. The instructional assistants are out of the classroom for the first part of the activity period. When they return, they work with the children to whom they have been assigned.

76. At the planting centre, the "experienced planters" explain to the newcomers the required procedure. A book about plants has been placed in the centre. It outlines the procedure which is to be followed. Most of the children seem to be familiar with the book and they refer to it frequently.

77. At one point two children come to Amy with a question about the planting procedure and she suggests that they go back and check the book. Amy's "hands-off" attitude towards this centre seems to encourage a great deal of discussion and problem-solving on the part of the children who are working there.

78. At 11:30 a.m. Amy rings a bell which evidently signals the end of the activity time.

79. There is a collective groan as the children begin to tidy up.

80. Amy reminds the children to take out their journals. As the materials are put away, each child gets his/her own activity journal, takes it to a table and records what he or she has done during activity time.

81. The children not only record what they have done but who they've worked with, what they've made, any problems they've encountered, and any other relevant comments.

82. Amy explains that she responds to the children's comments each day with a question, suggestion, or a comment of her own in each child's journal.

83. It is obvious that the children look forward to reading the previous day's response from their teacher.

84. As the children work on their responses, they ask each other for help with the spelling of names and other words, and they check the spelling of various centre names which are posted on a bulletin board.

85. Amy and the instructional assistants circulate amongst the children assisting them as needed.

86. As the children finish writing in their journals, they put them away and return to their tables.

87. By 11:45 almost everyone is finished. Amy instructs them to line up by the door. The buzzer rings and the children leave.

P.M. Classroom Observation

Date: May 27, 1992

Time: 12:45 A.M. to 3:30 P.M.

1. At 12:45 the children begin to enter the classroom, a few at a time. As they enter, they select books for DEAR (Drop everything and read), and they sit at their assigned tables and begin to read.

2. Amy helps some of the children with their selection.

3. Amy seems to spend more time with two particular students than with some of the others. She later explains that one of the two is a new student who has just recently arrived from El Salvador and was enrolled in the school that morning. As this child speaks only Spanish, she has paired him with another child who speaks both Spanish and English and is able to translate for him.

4. When all of the children have selected their books and are seated at tables, Amy says, "I'm going to do a quick roll call." She calls out the children's names, and they each respond with, "Here."

5. When roll call is complete, she gives the attendance sheet to a child who takes it to the office.

6. The classroom grows quiet as the children continue with their reading.

7. At one o'clock the speech and hearing clinician comes into the classroom and takes a child out for speech therapy.

8. A volunteer from the high school across the street also arrives and takes a child out to play games related to language development.

9. Two children sit in the listening centre with head phones and listen to a story on tape. The rest of the class are reading quietly at the tables.

10. Amy calls a child to the meeting area for a reading conference. They sit together on small chairs and Amy begins by asking the child to read a selection to her.

11. Amy engages the child in a discussion about the book that has been chosen. As the conversation proceeds, Amy jots down some notes on a file card.

12. After about fifteen minutes, the child returns to his table and Amy calls up a second child for a conference.

13. Most of the children are involved in their reading.

14. After about twenty minutes, some children have finished reading all of their books and magazines, and several quiet conversations begin around the room.

15. At 1:15 p.m. Amy instructs the children to put their books away and come to the meeting area.

16. She asks two children to put out the math tubs. While the other children are moving over to the meeting area, the two helpers take tubs of "hands-on" math materials from the shelves and place them on each table. They put two or three tubs on each table and then join the rest of the group.

17. Amy, meanwhile, takes a basket full of math booklets from a shelf and sits on a small chair at the front of the group.

18. She asks, "How many children got more than one job finished yesterday?" A number of hands go up and she responds by saying, "That's great!"

19. She hands out the booklets from the tub on her lap to about two thirds of the children.

20. To the remaining group of children she distributes large pieces of paper.

21. The children move off to their various jobs, evidently knowing what to do without further instructions.

22. The children working on math booklets use the materials on their tables to create various combinations of numbers ranging from six to seventeen. For example, a child working on the number six could use different groups of coloured beads to create the number six. (i.e. 2+2+2, 1+5, 1+2+3, etc.). He/she would then record pictorially the various combinations, and finally write number sentences to accompany the pictures.

23. The tubs at each table contain a wide variety of materials including things such as unifix cubes, pattern blocks, coloured beads, toothpicks and bottle caps.

24. The children are obviously very familiar with the materials and they use them in a variety of ways depending on the nature of the material and the requirements of their activity.

25. The children who are working with the large pieces of paper are doing a shopping activity. Using fliers and catalogues, they cut out pictures of items they would

like to buy, along with the accompanying prices. The pictures and prices are then pasted on their paper. They each have an imaginary $100 to spend and they must not spend more than that amount. As they paste items on to their paper they add up what they have spent and try to come as close to $100 as they can.

26. Although there is a great deal of talk during both of these activities, most of the children quickly become involved and attend to the task at hand.

27. Amy works with the new child, showing him how to use the materials and getting him started on a booklet. When she moves on to another table, several children voluntarily assist him with his math by gesturing or demonstrating for him what he is to do.

28. As the $100 group finishes their activity, they put their materials away and move to the back of the room where they take out tubs of materials and begin to work on estimation problems.

29. This is again done without any direction from the teacher.

30. They become quite involved in their activity, and as they do so, they converse in increasingly louder voices.

31. By 2:05 the noise level in the classroom is quite high. Most of the talk, however, relates to the work being done and most children are still on task.

32. At 2:15 p.m. Amy asks the children to tidy up and sit at their tables.

33. They quickly put their materials away and she calls one table at a time to line up for recess.

34. At 2:20 the recess buzzer rings and the children hurry outside.

35. Amy wheels a cart of home baking from the back of the room into the hallway where she and another teacher sell cookies and cakes during recess in order to raise money for a field trip.

36. Following recess the children go to gym and music class, and Amy goes to her weekly review meeting with the principal.

37. Both Amy and the children return to the classroom at 3:30. The children leave when they have picked up their home reading folders.

38. Amy remains in the classroom till approximately 5:30 p.m. She says that she likes this time to reflect on what has happened during the day and to prepare for the next day.

Evaluation Interview

I: Do you want to share some general things about evaluation before we talk specifically about assessment and record-keeping.

A: I keep my own private records to which the kids are privy. Its a process between the child and myself.

I: I noticed that when I was in your room the other day, just even in the writing folders, you had jotted down some things.

A: That was one thing I wanted to talk about. When I did my first set of report cards back in the fall, I set up these writing folders with this little piece at the back here that says "What I know about" and "What I'm learning about." And I did this myself. I didn't do it collaboratively with the child. It was my looking at their writing and assessing it. You can see here, this is dated November 16 and I'm afraid I only did it that one time. It made report card writing three times as long. I use this as a reference point still, and the children do as well. They look back on what it was that they were doing well and what kinds of things they were needing to work on. So we do use it as a basis for discussion regularly during the writing conferences, but that's kind of where we started from, and then when I did

the next set of evaluations I could look at what this child was working on here, the areas that needed developing, to see if those things had in fact happened.

I: That's an interesting idea.

A: I had a student teacher in my classroom, and my big plan was that I was going to take each child and their writing folder and remove them from the room and we would go through this and do it together. But it didn't work out that way. She was having some difficulties managing the classroom and I just wasn't able to do that. But I think it would be a useful exercise.

I: I can imagine. It would be hard to sustain that, but what a great idea!

A: And also I used this as basis for my parent interviews. You can discuss this, and of course you've got the writing folder right there and you can show them the samples that substantiate, that kind thing. And I've seen lots of writing folders where the focus is all on the mechanics of writing. For instance, here, this child is using different formats. He's using poems, non-fiction, articles, letters, etc. He's using models for writing. He's getting ideas from other books. And he needs to work on more information in his writing, like the setting and the character. So its more

than just the mechanics, but the content and the style. And that's really basically how I handle writing.

And the great thing about multi-age is that we kept their writing folders. They're fairly ratty looking, but I'm planning on keeping them and just carrying on next year, so the child's going to have a three year record of their own growth. And periodically we look back. I'll ask them to look at a piece that they wrote in September and a piece that they wrote in June, and see what kinds of things that they're noticing about their own growth. Because sometimes they don't see that on a day-to-day basis. Neither does the teacher often.

Spelling was something that I really wrestled with. Having taught grade one, it wasn't a great focus - looking at the developmental thing. Now that I have older children, I felt that there needed to be something more formalized, so I went again through their writing folders at another point in time, and I made a list of words and titled it "Words I Know how to Spell and Will Spell Correctly for the Rest of my Life." So I recorded all the words, because I felt that it was important to point out to them the things they could do. And again I looked at each individual child. For example K. is a nine-year old and quite articulate and pretty good skill wise, and I wasn't going to record words like "is" and "in" and those kinds of words. I was writing things that I thought were achievements for her level. And then I made a list of words that they need to practice. And again, I

wouldn't record a word here if it was a word that perhaps they would use only once in their lifetime. Here she's got words like "always", "every", "caught". Those are words I think she needs to spell. And then I chopped a scribbler in half and they practiced those first five words. When they felt they knew them, they got together with a friend and they asked each other the words. And once the friend deemed that they had spelled them correctly, they recorded them in a little commercial dictionary that they have, and then went on to the next five.

So the teacher's job is really to monitor. And again I can see loopholes. The plan was really for the children to add to this list. Some have and some haven't. And I guess I need to keep on top of all of that. But I was kind of pleased at how that worked itself out. Once you know a word you add it to your list. So that's looking at writing.

For reading, I record my observations on a file card, and every day after lunch the children have a half hour of quiet reading time and they choose three books. The rules change as time goes on. For example, when we were doing animal research, they had to choose one magazine, or one piece of non-fiction and two books of their choice. Sometimes I found that none of them were using the magazines to read. And so in order to get them using them, I would say, "You have to choose one magazine and two books." And of course they loved magazines, and thought they were just wonderful, and they've been used a lot since.

During that time, I just call children randomly, however their card appears in my file, and they read a piece to me. It depends again on the age of the child as to what kinds of things we talk about. Sometimes we talk about content and sometimes we're looking at the strategies that they're using. And I just document myself what I'm observing. And I always ask a substitute or a student teacher, whoever else is in my classroom, to record on my cards, because I'm always interested to know what someone else is observing. And I had a student teacher for a seven week period and she kept a record as well. And I thought that was a real learning experience for me, and for her because she didn't know what to look for and I wouldn't tell her. I said, "Write what you're observing." And she became a really good observer as time went on.

I: Do the children know in advance that you're going to call on them, and do they prepare something?

A: The rule is, when you choose your books choose something you can read, in case I call you. Now, a child's perception of himself or herself as a reader is different for each child. So, no, they don't know they're going to be called. Last year when I taught grade one, periodically throughout the year, I would choose a story that they hadn't seen and ask them to read that. But this year I haven't done that, I guess because of the variety of age levels. We'll discuss

whether or not the story was appropriate for them or not. They're really good at knowing whether something was too easy or too difficult. But sometimes even though the print is easy, there's a real interest in the content or the illustrations or there's another reason why they've chosen it. So those are important things, to note as well.

And I keep scraps of paper as you see here, and I often make recordings during activity centre time - what kinds of things they're choosing, what kinds of interactions I'm noticing. These last couple of months I haven't kept these up diligently, but I did fairly well before. And it just gave me a record of oral language, behaviour problems, interaction with other children, all those kinds of things, the kinds of choices they were making. And I didn't do this on a daily basis, because I like to be with the children while they're at centres, so I would try to remove myself once or twice a week to do some observing.

I did lots of interviewing at the beginning of the year. I found some interesting forms. For instance, this reading inventory on the kinds of books they like to read, favourite authors. What's the worst book you ever read? There's a whole series of questions. I didn't invent it, but its interesting. And its also a nice opportunity for you to meet one-on-one with the child. And I did another one. It was called "Concepts about Print". I think it might have been the Marie Clay thing. And I only did it with the

younger children. It wasn't appropriate for the older children.

I: I think that's such a good idea, especially when you're just getting to know kids.

A: And then I did this one as well. This is the Burke's Reading Inventory. And then I used this one as well. Its also for beginning readers. And I've also recorded on this reading continuum. I don't know where this comes from.

I: That's an appendix to our EIEP Guide.

A: And the other thing.... The children did a self-evaluation. I don't know if you've ever seen this form. I don't know where I got it from, but its really interesting. They have an accurate view of themselves, I felt. We did it together, because lots of kids aren't readers.

Jumping back to activity centres.... The children also keep a journal of what it is they did in a day. Its really just a recording of what they did. I'm at the stage where I'm asking them not to just put, "I went to blocks", but to tell me what you did there. And then I always ask a question of some sort, or make a response to which they have to respond. So I just think its another purpose for writing. They're also keeping a record for themselves. Kids will go

back and see where it was they were yesterday in order to make a plan for the next day.

I: When I was here the other day, I was curious about whether or not there were restrictions on the numbers of children in each centre.

A: There are. We've talked about them. The house centre has four children, the big blocks have four, the sand has four. We've sort of discussed it as we've gone along. For instance, today some kids were at puppets, and there was a big discussion about how many people should go to puppets, and they decided that two was plenty. And those two children put on a puppet show. So, we've just kind of invented the rules as we've needed them. I've actually been in classes where you see these rules on the wall. And maybe the kids have made them up. I'm not quite sure. But they know. You don't need to have them posted.

When they record in these journals I feel that I can adjust my language to a particular child's needs. So I might ask a more complex question of someone who's more able.

I: And do you respond most days?

A: Yes. I don't on Friday because I feel that by the time they get back on Monday, they've long since forgotten what

they did and why and what they've discovered and what happened.

I: That's a lot of work.

A: Yes. But its certainly better than marking phonics sheets. It takes me about half an hour. We're still doing the same amount of work. We're just doing it differently. In the old days I marked workbooks and phonics sheets. This, to me, is far more useful. Once in a while I skip a day, but on the whole I try very hard to keep up. And the kids really look forward to finding out what I've written. And there's another purpose for them to read.

I also have a home reading program. The children have gone through three cards. They're on their fourth card, now for the year. It just records the name of the book and a comment about the book. This is the first year I've done that. And some parents write interesting comments, and sometimes children write comments and some just leave it. But I think its important. I think it lends even more importance to the job. And then when they bring them back the next day, they read with a partner. So they're practicing that again, and they're getting lots of reading practice. And they're reading to an audience of one, but they're having lots of opportunities to practice.

Now with my older children, I've just started recently, having them keep literature logs. And they record

their observations. Its almost like writing a little précis and a reaction to it. And then I interact as well. I started that with the older kids because I felt they didn't really need that reading practice anymore, that they should be extending themselves in different ways. So, they've been doing that since maybe February.

And math.... I did individual interviews at the beginning of the year. I've taken a course called Math Their Way. I spent a summer and a winter taking it, and I really used that as the basis for my math program. But I only did that once. Last year I did that three times throughout the year. I'm finding math a real challenge and I'm needing to be in a million places at once. So, that hasn't worked itself out quite as well as I thought. When I had a student teacher I was able to take little groups. I'm finding myself in the classroom and they're all sort of operating at their own pace and their own level.

I: I thought it worked pretty well the day I was here. It seemed like a good system.

A: Yes. Its a great course. There's another one for older children that I would like to do next in order to do the extensions.

I: So in terms of math, you did an interview, and you observe them as they're working and interacting.

A: And again I made lots of notes. At the beginning of the year we did lots of sorting and patterning and all that kind of thing. So I just kept anecdotal records on them, and did observations for those kinds of things. Now, they're working in math booklets. They use first concrete and then abstract, and I can see how they're doing with that booklet and I'm interacting with them constantly all day so I have a very good view. Although, the book is the product. The process they've gone through is something.... I just think it would be tedious for me to record that. I have a good sense of each child, even though I don't always have every little thing on a piece of paper.

I: And when you look at the product, that often brings back a recollection about the process.

A: Yes. Oh, I remember doing this with so-and-so.

I: What about art and science and social studies? That seems to be integrated into everything else that you're doing.

A: Do I teach those kinds of things?

I: Well, how do you keep track? Do you have a record beyond your observations?

A: No, other than a product. For instance they did research on animal groups. I had very different expectations for the six year olds than I did for the eight year olds. The eight year olds edited and they had Table of Contents and those kinds of things.

I: Do you keep a portfolio or a scrapbook of what they've done, or do they pretty much take it home as they do it?

A: In my old school, I used to send things home every Friday in a folder. And the parents signed and commented on the folder. But in this school, its very difficult to get things back. My main focus is my home reading, and I thought if I push that and get that back, I wasn't going to do the other. The same with writing. I'd like to do the same kind of thing. I think parents get a really good view of their child as a reader because they're hearing them reading every day, but they're not seeing them writing every day. The writing folder stays here, and I think that's something I will need to work on.

I: Have you had a fairly good response with the home reading program?

A: Yes. There are children who forget and parents who don't get it done, but its something I always comment about in the report cards, and I talk about it at interview time. And I

think that once the parent knows that that's the basis for something we do in the classroom the next day, they're supportive.

A: I did a brainstorming session with the children back in the fall about what they would like to learn if they could learn anything in the world they wanted to know. Its interesting, because a lot of the things they wanted to know about are things that are actually in our curriculum, such as dinosaurs and plants and space. It was kind of fascinating. We sort of went through a step-by-step process and then brainstormed for how we could find out about those things, because I think kids think of learning as just going on at school, and we really extended that to watching television, talking to parents, going places. You're learning things all the time. We talked about how they learned about things before they came to school. I think they always think that information is only in books, and that's the only place they can find out things. They can learn by experimenting, by trying things out. And then we did another session of brainstorming about how you can show other people what you have learned. And its not always by just writing a report.

I: That's great.

A: I thought it was, and they came up with some really interesting ideas.

This year I was on a committee of learning styles. That was kind of a focus that not all children learn in the same way or express what they've learned in the same way.

APPENDIX B

1. Rachel's report card
2. Letter accompanying Rachel's report card
3. Rachel's letter to parents at the end of the year
4. Concepts About Print Inventory
5. Burke's Reading Interview
6. Self Evaluation Questionnaire

SCHOOL

Principal: _____
V.Principal:_____

Multi-age Report Card

Student: Term:2nd Teacher: _____

Date:March 1992 Year in Program: Days Late: Days Absent:

Guidelines used to evaluate individual progress this term are as follows:	Teacher comments are based on observations and evaluation of students daily progress.
LANGUAGE ARTS: (Listening, Speaking, Reading) -is attentive in various situations -attends during group discussions -contributes to discussions voluntarily -follows oral directions -expresses ideas clearly -can relate events in sequence -recognizes sight words -decodes words through picture clues, context or phonetic strategies -reads with understanding -is able to predict -is comfortable reading to others -remembers to participate in "Home Reading" -chooses a variety of reading materials -chooses reading material that challenges and promotes growth	COMMENTS:

LANGUAGE ARTS: (Writing)	COMMENTS:
-is independent and expresses own ideas -is using invented spelling -leaves spaces between words -writes stories using stories with a beginning, middle, and end -is using imaginative and descriptive ideas -applies conventional spelling more consistently -is able to edit own writing using C.O.P.S. strategy -is on task during writing activities	
MATHEMATICS:	COMMENTS:
-understands mathematical terms -is able to sort, order, and classify -understands numeration -performs basic operations,(+,-,x) -recalls number facts (+,-) -counts by 2's, 3's, 5's, 10's -recognizes Roman Numerals to 20 -recognizes coins and their value -tells time -applies appropriate basic operation in problem solving -is confident during math related experiences (ie. calendar, cooking etc.)	

ENVIRONMENTAL STUDIES:	COMMENT:
-has good general knowledge of self, family, and community -applies learning to other situations -organizes/reports information -relates to and cares about the environment	
ARTS: -participates in creative activities -uses art material effectively -participates in songs and chants -participates in dramatic play	COMMENT:
PHYSICAL DEVELOPMENT: -uses good manners -appears rested -shows co-ordination of small muscles -uses space and equipment appropriately	COMMENT:

SOCIAL/EMOTIONAL DEVELOPMENT COMMENT:

_____SCHOOL

Principal:_____

V.Principal: _____

Tuesday, March 17, 1992

Dear Parent(s):

Receiving your child's report card must be an exciting time. The comments I have made reflect my impressions of your child in the time we share at school. You spend more time with your child and are able to see him/her on a more individual basis. So, of course, you have insights and impressions that may differ from mine. Please share these and we can work together and continue to make this year a rewarding experience.

When writing reports, I have tried not to use "teacher jargon" but some terms become so frequently used, that we forget that they may not be familiar to everyone. If there are terms or points you want clarification on, or if you would like a conference to further discuss your child's progress please fill out the enclosed letter and return it to the school.

The summary of this term's learning activities and your child's report are attached and will provide you with further information on your child's school experiences.

It is important that children have time to develop. Experience has shown that accepting and appreciating what the child can do now is the most effective way to help that child progress. Programs such as journal writing require faith, patience and support.

Keep reading with your children and encouraging their writing and enjoy the rewards of your efforts.

Thank you for your continuing support and I look forward to meeting with you during "Parent Interviews".

Yours truly,

_____
Teacher

Thursday, June 25, 1992

Dear Parent(s):

This has been an exciting year! I've enjoyed teaching the students in my class a great deal. Each child is unique and together they've been WONDERFUL! We've been fortunate to have gone on many Field Trips due to the "Book Fair" fundraising that you made possible. There are many parents I would like to thank for their time and dedication. They are Mrs.B, Mrs.and Mr.D, Mrs.F, Mrs.C, Ms.D, Ms M, Mrs.C, Mrs.C, Mr.K, and Mrs.and Mr.Y. Thank you for being available when we needed you.

This term our class visited the Fort Whyte Center, _____ Greenhouse, Tree Planting in _____Park, Folkdancing in The Park, Making Pollution Fighting Hats, The Children's Festival and The Gerbrandt Vacation Farm near Grunthal. I have been very impressed with most of the children's enthusiasm on each occasion. These Field Trips have provided them with the opportunity to enrich their lives with increased knowledge about the world around them.

In class we followed up on these activities. The children learned more about "pond life","life cycles", and "metamorphosis". We also looked at ways we are responsible for caring for our world. We took time out one day to clean-up the fence around the schoolyard. The children became good at collecting litter whenever it crosses their path and more importantly learned to put their own garbage in the trash cans around the school. A further project was the study of what shares our environment. Such things as "Plants, Birds, Insects, and Fish". We researched these areas in class and learned note taking and reading to find out information. We had many interesting ways of expressing what we found out. Some people made books, while others drew pictures, made models, painted, and planted. We also planted geraniums to beauify the school grounds. (We're still waiting for a nice day to plant them outdoors.)

While these children were studying our environment another group was working on "Nutrition and the "Human Body". This activity allowed the people involved to expand their knowledge of themselves.

Fairy Tales also played an important part in our studies this past term. We compared many Fairy Tales and looked at what they had in common. Then we read Fairy Tales which had been adapted to relate them to our world today. The students then looked at the story elements in a Fairy Tale before we started writing our own Fairy Tales. I was very pleased to see that the children did their best and most of them included humour in their stories. I will enclose a classbook of Fairy Tales in your child's Folder.

Math was again a challenging area because of the progressive nature of this subject. I concentrated on subtraction, fractions and briefly on division. This is an area that my students LOVE. Math is one of their favorite subjects and we do the best we can. I do plan to focus on this area in the coming year along with my colleagues. Please feel free to talk to me about this area if you have specific concerns.

I've dreaded saying good-bye to some of you this year because I know we will not be seeing as much of each other in the coming years. I am sad and proud to see K.Y, K.B,K.P,T.S and W.Q moving on to GRADE FOUR! We wish them all the best in the coming years and will miss them. A special "Thank-you" to their parents N.,J.,G.,F.,M.,L.,A.,M and B for the support you have given us.

I am pleased that A.,A.,A.,A.,C.,C.,D.,D.,G.,M.,M.,M.,M.,and N will be there to help me "WELCOME" the new students to our class. It has been wonderful working with EVERYONE OF YOU (Parents included). You were always there when we "Needed A Hand". I can honestly say I look forward to working with you and the new administration in the coming year. Together we can make _____ School a positive place for our children. Have a fabulous summer!

Sincerely,
(Teacher)

CONCEPTS ABOUT PRINT

Name of Book _____

Student _____ Grade ____ Date _____

Interviewer _____

N - No Behavior D - Developing S - Secure

	N	D	S
1. Label - "What am I holding?"			
2. Function - "What do you do with a book?"			
3. Content - "What's inside the book?"			
4. Format - "Show me the front of the book."			
5. Title - "Show me thye title of the book."			
6. Author - "What does 'by _____' mean?"			
7. Checkpoint - "Will you read this book to me?"			
8. Print - "Where do I start reading?"			
9. Top of page. Bottom of page.			
10. First word - "Point to the words as I read."			
11. Left to right.			
12. Top to bottom.			
13. Voice to print match.			
14. Next page - "Where do I go now?"			
15. Main idea - "What would you name this story?"			
16. Retell story.			
17. Letters - "Show me one letter, two letters."			
18. Words - "Show me one word, two words."			
19. Punctuation - "Show me a period."			
20. Capitalization - "Show me a capital letter."			
21. Other -			

Comments

BURKE'S READING INTERVIEW

NAME: _____ AGE _____ DATE _____

OCCUPATION: _____ EDUCATIONAL LEVEL: _____

SEX: _____ INTERVIEW SETTING: _____

1. When you are reading and you come to something you don't know, what do you do?

_____

_____

Do you ever do anything else?

_____

2. Do you think (ask a teacher's name) is a good reader?

_____

Who is a good reader that you know?

_____

3. What makes her/him a good reader?

_____

_____

4. Do you think that she/he ever comes to something she/he doesn't know when she/he is reading?

_____

_____

Yes When she/he comes to something she/he doesn't know what do you think she/he does about it?

_____

_____

No Suppose that she/he does come to something that she/he doesn't know. Pretend what you think she/he does about it?

_____

_____

5. If you knew that someone was having difficulty reading, how would you help them?

_____

_____

_____

6. What would a/your teacher do to help that person?

_____

_____

_____

7. How did you learn to read?

_____

_____

What did they/you do to help you learn?

_____

_____

8. What would you like to do better as a reader?

_____

_____

9. Do you think that you are a good reader?

_____ yes _____ no - WHY NOT _____

_____

ADDITIONAL NOTES: What is wrong with your reading? Where do you make your mistakes?

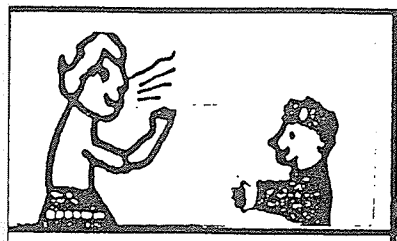
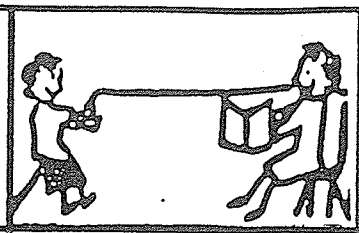
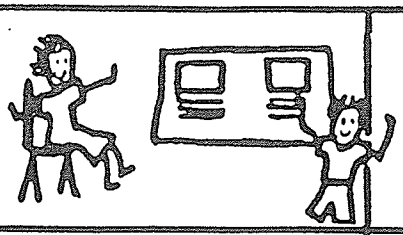
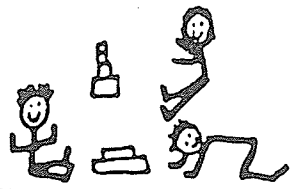
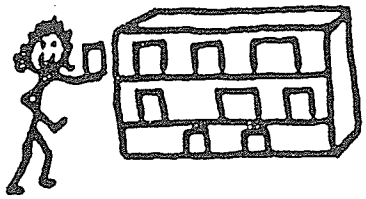
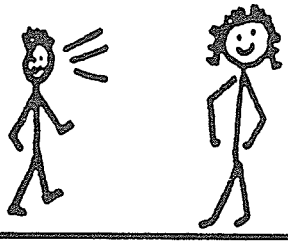
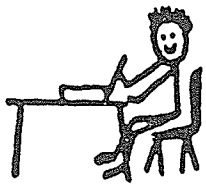
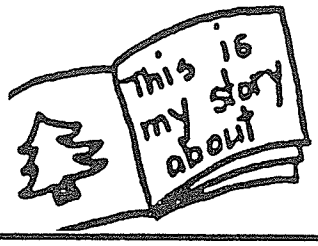
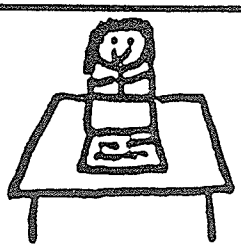
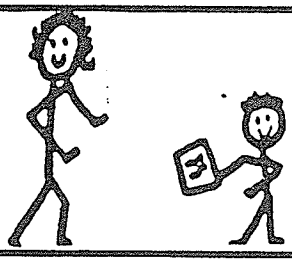
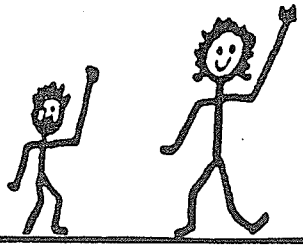
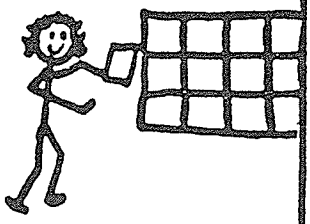
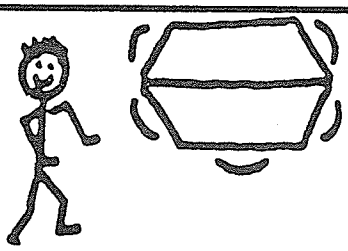
_____

How could I help you become a better reader?

_____

_____

_____"S OWN REPORT

			
I listen while others speak.	I listen to stories attentively.	I enjoy my reading experiences.	I work and play well with others.
			
I look after books.	I can express myself orally.	I can write my own stories.	My printing can be easily read.
			
I can work quietly and independently.	I finish my work on time.	I can follow instructions.	I look after my things and keep them tidy.
			A -Almost always P -Part of the time N -Not yet
I move about our room quietly.	I put my things away when	I try my best at my work.	

Reading

Math

Comments

APPENDIX C

1. Letter to parents of children in the study
2. Parental consent form for children in the study
3. Teacher consent form
4. Letter of approval from the Research and Ethics Committee

March, 1992

Dear Parents/Guardians:

I am writing to you to request permission for your child to participate in a research study which I will be conducting at _____ School during the months of April and May, 1992. I am a student in the Faculty of Education at the University of Manitoba, and I am currently completing a program of studies towards a Master of Education Degree. As part of my program, I am studying the topic of multiage grouping in early years education, and I will be carrying out research in the five multiage classes at _____ School.

In the study I will be examining the organization of the multiage classes and the day-to-day experiences of teachers and students in those classes. This will be done on three occasions through interviews with the teachers, and observations in the five multiage classrooms. I will not be focussing on individual students, but on more general issues such as how children are grouped for instruction, the nature of interactions between students and teachers, and the way in which the classroom is organized. Neither the school, the classroom nor individual students will be identified in the study.

The data collected in this study will provide important information about multiage grouping which can be used by your child's teacher to improve programming, and by other educators who are interested in multiage grouping.

In order to observe children in the multiage classrooms, I require the permission of parents and guardians. Would you please indicate on the attached consent form whether or not I may observe your child in his/her classrooms as part of this study. Please return the form to your child's teacher by April 10, 1992. Please be advised that you would be free to withdraw permission to observe your child at any point during the study by simply contacting me or your child's teacher.

A summary of the research findings will be made available to interested parents when the study has been completed.

If you would like further information about this study please feel free to call me at 254-3131. Thank you for your cooperation in this matter.

Yours truly,

CONSENT FORM

Please check one of the following:

_____ I give permission for my child, _____,
(name of child)
to be observed in the research study on multiage grouping in early years education.

_____ I do not want my child, _____, to be
(name of child)
observed in the research study on multiage grouping in early years education.

_____
(parent/guardian signature)

LETTER OF CONSENT

To: Teachers of the multiage classes at _____ School.

From: Jane Turner

Subject: Consent to participate in a study focussing on multiage grouping in early years education.

What is this study about?:

The major purpose of this study is to collect and analyze a body of descriptive data about and learning in the five multiage classrooms at _____ School. A secondary purpose of the study will be to engage you (the teachers) in a process of dialogue and reflection regarding your beliefs and practices in relation to teaching in a multiage setting.

What will you be agreeing to if you provide consent?:

If you provide consent to participate in this study you will be agreeing to participate in three or four interview/dialogue sessions, each approximately one hour in length. I will be the interviewer/facilitator in each of these sessions, and I will tape record and take notes on our conversations. You also will be agreeing to let me observe you in your classroom as you go about your normal teaching activities. The first observation will take place over the course of a full school day. The second and third observations will be between one and three hours each. Observations will be recorded anecdotally and will be shared with you at the end of each observation period.

What you need to know:

Your participation in this study is entirely voluntary. Even if you initially agree to participate, you may change your mind at any time and withdraw from the study. In order to withdraw, you simply need to notify me of your decision.

I will make every effort possible to keep your identity confidential. Neither the school, the classroom, nor individual teachers and students will be identified in the study.

When the study has been completed, a summary of what has been learned will be given to you.

If you would like additional information about this study, please feel free to call me at 475-1485.

Letter of Consent

I have read and understand the above information. I agree to participate
in this study:

Signature of consent: _____

Date: _____

I give my permission to have my written and verbal comments quoted:

Signature: _____

Date: _____

I give my permission to be observed in my classroom:

Signature: _____

Date: _____

I have received a copy of this form for my records:

Signature: _____

Date: _____

HE UNIVERSITY OF MANITOBA

FACULTY OF EDUCATION
Research and Ethics Committee

Winnipeg, Manitoba
Canada R3T 2N2
Telephone: (204) 474-8780
Fax: (204) 275-5962

April 6, 1992

Ms. Jane Turner
Winnipeg, Manitoba

Dear Ms. Turner:

On behalf of the Ethics Committee, I am pleased to inform you that the Faculty of Education Research and Ethics Committee is approving your research proposal, entitled "Multiage grouping in early years education: A descriptive study of five multiage classrooms".

A copy of the approval is attached. Good luck with your research.

Yours truly,

Stanley B. Straw, Ph.D.
Chair, Research and Ethics Committee

JCK/ew

Enc.

cc. Dr. K. Seifert
Dr. P. Madak