1993

Effects of an intergenerational program on children's learning outcomes and behaviour and on teachers' attitudes towards using seniors as volunteers in the classroom.

Judith Dianne. McLaughlin
University of Windsor

National Library of Canada
Acquisitions and Bibliographic Services Branch
395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale du Canada
Direction des acquisiiions et des services bibliographiques
395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

Canada

EFFECTS OF AN INTERGENERATIONAL PROGRAM ON CHILDREN'S LEARNING OUTCOMES AND BEHAVIOUR AND ON TEACHERS' ATTITUDES TOWARDS USING SENIORS AS VOLUNTEERS IN THE CLASSROOM

by

Judy McLaughlin

Submitted to the Faculty of Graduate Studies and Research
Through the Faculty of Education in Partial Fulfillment
of the Requirements for the Degree of Master of
Education at the University of Windsor

Windsor, Ontario, Canada

1993

ISBN 0-315-83022-0

Canada

Name Judy McLaughlin

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.

Education - Elementary
SUBJECT TERM

0524
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

ABSTRACT

The purpose of this study was to examine the effects of an intergenerational program on children's learning outcomes and behaviours and on teachers' attitudes towards the use of seniors as volunteers in schools. To measure learning outcomes, 41 children's curriculum test scores from two junior division classrooms were compared to 45 children's test scores from two different classrooms. To measure children's behaviour, a tally adapted from the BDRS was used to compare four different types of behaviour when seniors were present and when teachers were present. The four behaviours measured were disruptiveness, needing attention, inattentiveness, and distractiveness. Six teachers were involved in the study. Their attitudes towards using seniors as volunteers in schools were measured using a 6 point Likert scale and open ended questions. Curriculum results indicated that there were no significant differences in test scores between the two groups of children. Significant results were found for three behaviours when comparing the children with teachers and with seniors present. The three behaviours were disruptiveness, needing attention, and inattentiveness. Results of the teachers' questionnaire indicated that they all had positive attitudes towards having seniors volunteer in the school. More research is needed to examine the effects of these programs on children's learning outcomes and behaviours.

ACKNOWLEDGEMENTS

A year ago, Mary Feniak and I embarked on a journey. We both knew what our final destination was, however, we had no idea of what route this journey would take us on. Neither did we have any idea of what detours or roadblocks we might encounter along the way. There were signposts and a general map to use. However, without the help and support of a number of people, this journey may never have been completed.

Mary has been an inspiration and a believer throughout the past year. She is a dedicated professional who truly believes in empowering people to achieve their own goals. More than once her faith in people and the process kept this project together. Although we come from two different professions, we both have similar philosophical beliefs. One belief is in improving the quality of life for the age groups we work with. Mary deals with seniors and I work with children. We both felt that by bringing these two age groups together we could provide opportunities for a meaningful learning experience. To this end, the project was a great success.

Dr. Morton and Dr. Ball both deserve our gratitude. On numerous occasions they listened, reacted and provided guidance throughout this project. On more than one occasion, Dr. Morton's well chosen remarks and challenges sent us back to retrace and review our roadmap. Learning is

a very personal experience and each one gains what they are willing to put forth. For me, this was a valuable learning experience.

Whenever we lost our way, Jim Larocque from the Lambton Health Unit, put us back on track. We relied on his help and assistance with the statistical procedures. His patience and persistence with two neophytes was remarkable. When we didn't understand, he explained and helped make sense out of all the tables and figures. We owe him a great deal.

A special thanks must go to the staff, parents, students and seniors from the school and community. The staff very willingly agreed to take on this project. They spent time planning, organizing and carrying out the activities within their classroom. The seniors, as well, were tremendous. Their enthusiasm and commitment to the project was overwhelming. They organized activities, brought in displays and artifacts and quite freely gave of their time and energy to work with the children. The positive response of the children was proof of the value of the project.

The last acknowledgement must go to my family. Without their love and support, I could never have completed this thesis. I thank them for their understanding and for being there when I needed them.

TABLE OF CONTENTS

List of Figures

Figure Page

List of Tables

List of Appendices

CHAPTER I

Introduction

This project is a product of a joint study co-authored with Mary Feniak to investigate the effects of an intergenerational program on children's learning outcomes, children's behaviour, and on teachers' attitudes towards the use of seniors as volunteers in schools.

The elderly population is growing both proportionately and numerically. By the year 2006, this population will have increased by fifty one percent from 1981 (Ontario Gerontological Association, 1988). By the year 2013, the number of people aged 65 or over will represent sixteen to twenty per cent of Ontario's total population (Shipman, 1985). Accompanying this increase in the percentage of the older population, the population under 20 is decreasing (Southall, 1984).

Tax coalition groups are becoming more vocal in their demands for reduced government spending. In the future, different interest groups will be vying for money that is less available (Shipman, 1985). With a larger elderly population there may be pressure to transfer resources from the education of the young to the care of the elderly. A smaller work force will have to pay higher taxes to cover the costs of pensions and meet the needs of an expanding senior population. A concerted effort on the part of all society will be needed to reduce competition for government

money and to increase understanding of the needs of these different interest groups.

Children are growing up with little contact with the elderly and therefore have a limited understanding of elderly people. The demise of the extended family has resulted in many children not experiencing a caring relationship with an older person. We live in an age-segregated society (Seefeldt, 1987). Consequently, most children are ignorant of the process of aging and have a distorted view of what older people are like and how they live. Several negative myths and stereotypes exist about the elderly. They are seen as useless, slightly stupid, and the reasonable object of pity (Southall, 1984). By the age of eight, most children have internalized negative attitudes about old age and the elderly (Page, Olivas, Driver, & Driver, 1981).

Schools have the opportunity to play an increasingly important role in educating children about aging and the elderly. Intergenerational programs provide a vehicle for debunking some of the existing myths by providing opportunities for children to relate positively to older people. These programs may also help to improve community relations as well as highlighting older people as valuable human resources. Learning outcomes of children and their behaviour may also be positively affected as a result of the interactions with seniors. Seniors' attitudes in regard to

their own value and their worth to the local community, schools and children may be positively enhanced.

Purpose of the Study

The purpose of this study was to examine the effects of an intergenerational program on children's behaviours, children's learning outcomes and on teachers' attitudes towards the use of seniors as volunteers in schools.

Review of the Literature

Aging and age have many different meanings. Age may be defined as the length of one's life in years. Aging may be defined as the events and phenomena found in later life or the changes within individuals over time. It is a dynamic process of physical, psychological, and social adaptations and changes that occur throughout the life span (Marshall, 1987; Novak, 1988). The aging process occurs not only within individuals but between individuals and cohort groups (McPherson, 1990).

Aging of a society from an historical perspective indicates dramatic shifts in not only the meaning of aging but the status of the elderly and their impact on society (Novak, 1988; Levin, 1980).

In early agrarian societies the elderly held influential social, political, and religious positions. They had knowledge, experience, and owned land (a source of power) and were respected in their communities. As they became frail or ill their role diminished and the ownership

of land was passed on to their sons (Levin, 1980; McPherson, 1990; Murphey, Myers, & Drennan, 1982).

As preindustrial and industrial societies developed, the status of the elderly changed. For example, as education and literacy increased in society, the value placed on the elders' knowledge and experience decreased. The young got better jobs and consequently had more status and power. The population shift to urban life reduced the control of land by the elderly. Mandatory retirement also affected the social status and until recently the standard of living of the elderly (McPherson, 1990; Levin, 1980).

Since World War II, the changes within the family system from extended to mobile nuclear and single parent families have increased the trend of seniors living independently and eventually seeking institutional care (Marshall, 1987; Novak, 1988; Peacock & Talley, 1984). The family's experience with the elderly has changed over time. It has become more limited, and as a result, attitudes and perceptions of the elderly may not be accurate (Marshall, 1987).

The life expectancy of Canadians has increased by approximately 10 years over the past decade (Ontario Gerontological Association, 1990), with the fastest growing segment of the population being those 85 years of age and older. Statistics Canada estimate there will be a 137% increase in those 85 years of age or over (the old-old) by

the year 2021. When this segment of the population includes the aging of the baby boomers, the proportion of senior citizens will rise sharply to 20% of the total population (Ontario Gerontological Association, 1990; Gutman, 1981; McPherson, 1990; Novak, 1988). See Appendix A for population projections.

Palmore (1980) states that these statistics will have an immense impact on the services, resources and structure of our society as one in four people will be 65 years of age or older. The cohort group of those 75 to 84 years of age (the middle-old) will show more health impairments and will have greater need for home support services than the general population (Shipman, 1985). The demand for a greater share of our limited resources will increase competition among the institutions and agencies who depend on tax revenue. An example of this is the competition for funds for day care programs for young children or for the frail elderly, health care or education (Marshall, 1987; Shipman, 1985; Southall, 1984). Those 65 to 74 years of age (the young-old) will also be making demands for new educational and recreational opportunities (Novak, 1988; Southall, 1984).

The dependency ratio of the population will shift gradually as we enter the 21st century. The proportion of workers will decrease compared to an increase in non-workers, this includes children and the elderly (McPherson, 1990; Novak, 1988). The competition for limited resources

will be affected by the attitudes, relationships and expectations of all the cohort groups.

Marshall (1987) states that Canadians will have to plan and initiate creative social policies in order to enable smooth transition into the next century. Lubomudrov (1987) documented that public policy is influenced by legislators' attitudes towards aging.

There is a lack of accessible public information on aging and the aging process, as well as decreased opportunities for all younger cohort groups to observe the elderly. These factors have created an environment in which myths have become the basis for beliefs about aging and old people (McPherson, 1990). Myths can, over time, become accepted as facts which could have a negative influence on the behaviour and expectations of young, middle aged, and aged people. Ansello (1978) notes that if as a society we expect aging to be negative, then the process will be dreaded.

In 1973, Butler introduced the term ageism as a process of systematic stereotyping and discrimination against people because they are old (Palmore, 1980). Ageism as defined by Levin & Levin (1980) is an attitude that predisposes an individual to discriminate against older people. Neuhaus and Neuhaus (1982) have stated that "ageism represents a prejudicial orientation toward the elderly based on misconceptions, half truths and ignorance" (p.241). Palmore

(1980) defines ageism as any prejudice or discrimination against or in favour of any age group. Schonfield (1982) defines ageism as being prejudicial and discriminatory.

Ageism consists of the beliefs or stereotypical attitudes held by members of society. Ageism flourishes in industrial societies for many reasons. Mandatory retirement, society's references to lack of productivity, mental decline, conservatism, and sexual decline, when coupled with the change in family structure all contribute to the discrimination and victimization of the elderly (Levin, 1980; Southall, 1984).

Neussel (1982) discussed the language used to describe the elderly as being negative. It was also sexist in regard to the elderly female. He suggested that there should be guidelines for language used to describe this segment of the population. Palmore (1980) stated the effects on the elderly include loss of self-esteem, mental and physical decline, inactivity, and decreased socialization. He noted the losses to society, especially to the young, of wisdom and support of the elderly. Also lost are the experiences of their youth, often in times now considered historical, as well as their experiences of aging (Levin & Levin, 1980; Neuhaus & Neuhaus, 1982; Shipman, 1985).

Peacock and Talley (1984) found that many seniors have accepted the stereotype of the old. Common ways in which seniors may respond to negative stereotypes are: Seniors may

accept the stereotype and either accept inclusion in that group (the old), conform or deny affiliation with the old by constantly trying to look and act younger. Some seniors choose to avoid the implications of both the stereotype and their own aging (withdraws, abuses drugs and alcohol, becomes mentally ill). Other seniors accept that they are affiliated with the old but choose to deny the stereotype by challenging society through lobbying, education, and political activity (Ansello, 1978; Levin & Levin, 1980; Marshall, 1987; McPherson, 1990).

Societal costs of not utilizing the human resources of this cohort group in areas such as volunteers or as part time employees has not been estimated. Discussion of the age for mandatory retirement and volunteer work in the community is continuing (McPherson, 1990; Shipman, 1985). As the older population and needs of society increase and resources shrink, ageism will need to be addressed, as negative stereotyping could be a barrier to sharing and utilizing seniors for the benefit of all (Murphey et al., 1982; Novak, 1988; Palmore, 1980; Southall, 1984).

Marshall (1987) stated that children's experience with the elderly may be very limited, depending on the amount of interaction they have with their grandparents and extended family. This may result in their having inaccurate images of the old and encouraging stereotyping of the elderly.

In a study done by Allred and Dobson (1987) to

determine the change in children's attitudes after contact with the elderly, it was reported that perceptions regarding aging improved slightly. This program paired children with nursing home residents for activities. The results may have been influenced by the mutual friendships and interests which developed over the ten weeks allocated for the study.

In a study by Marks, Newman, and Onawola (1985) cognitive, affective, and conative domains of children's attitudes towards both the elderly and young adults were examined. Results of the Children's Attitudes Toward The Elderly (CATE) questionnaire indicated that children had a negative perception of the aging process. When asked how they thought it felt to be an old person, their responses included terms such as unwanted, helpless, weird, scary, lonely, and sad. General perceptions of older people were positive, as indicated in responses such as kind, happy, and friendly. However, some negative stereotypes existed about old age.

Peacock and Talley (1984) found that elderly age bias begins early in life. In citing a study by Bennett (1976), the authors state that twelve and thirteen year olds have negative attitudes towards the elderly. This may be due to lack of intergenerational contact, changes in family structure and increased family mobility. Further research is needed to identify causes of ageism in young children. In their conclusions, they identified educators as being

influential in reducing negative perceptions of aging through the implementation of intergenerational programs.

Murphey et al. (1982) reported in their review of the literature that the way in which attitudes about aging are transmitted is a concern. The way in which the elderly are presented in the media, the lack of interaction between the young and the old have given children limited knowledge and experience with the elderly. This has contributed to children's negative perception of aging.

Page et al. (1981) examined the attitudes of children aged three to 11 years in regard to older people and growing old. The CATE questionnaire was used. Results suggested that of the children interviewed, the attitudes towards the elderly were generally negative and in keeping with the stereotypical attitudes of the general population. The children reported limited contact with the elderly, shared passive activities with them, and had few ideas of what they could do for them.

A study of attitudes in a multicultural setting in Israel by Bergman and Cybulski (1980) found that children regarded the elderly as a resource for learning. Cultural origins, proximity, and frequency of interactions influenced the children's attitudes positively towards the elderly. They cited the traditional Israeli family structure, proximity and cultural values as having an impact on the value children place on the elderly as a learning resource.

They also noted that mutual obligation was more prevalent in the traditional setting whereas reciprocity was more prevalent in the less traditional setting.

A survey by Jantz, Seefeldt, Galpner, and Serock (1977) indicated that older people are generally described by children as being lonely, bored, grouchy, uninterested in life and inactive.

Hickey, Hickey, and Kalish (1968) in a study of Grade Three children, report that old people are regarded as being feeble and friendly. There was a higher proportion of negative attitudes among the children of low socio-economic background than of middle class background.

Golde and Kogan (1959) tested children's attitudes in a sentence completion questionnaire and found that they had more negative attitudes towards the elderly as compared to their view of people in general.

Intergenerational programs have existed in Canada and the United States since the late 1960's and early 1970's. These programs "involve the interaction of all age groups, infants to elderly, in a variety of situations at all levels, that provides close communication, sharing of feelings and ideas, and cooperative activity in meaningful tasks" (Peacock & Talley, 1984, p. 13).

When examining intergenerational programs from an ideological perspective, two contradictory issues have evolved. The first issue is framed in terms of conflict and

competition for limited government funds in a time of diminishing resources (Cohon, 1989). An example of this dilemma is the increasing cost of education versus the increasing cost of health care. The question arises as to where the government will allocate funds, classrooms or hospital beds, text books or drugs or day care or elder care. This competition discourages collaborative problem solving.

In contrast to this position is the second issue which focuses on the idea of interdependence of generations. Mutual support and dependence between generations for the transmission of culture, services, and knowledge is inherent in this context. A healthy, productive society fosters mutual support and dependence among cohort groups. There are many opportunities for children and the elderly to interact, support, and share culture and knowledge.

From a theoretical perspective, Cohon (1989) has postulated the notion that intergenerational programs have roots in a number of different theories. These theories include life span developmental theory, theories of aging, as well as child developmental theories.

Erikson (1963) states that children in the industry stage of psycho-social development depend on adult approval and seek adults other than parents with whom to identify. Seniors, as positive role models, can be important at this stage of child's development. Piaget and Inhelder (1969)

have noted that children in the concrete operational stage of intellectual development begin to reason and think logically. One might expect that they may start to comprehend the concept of aging and its impact on the elderly. Increased interaction between seniors and children may help a child understand aging better.

Mannheim and Stewart (1962) and Butler and Lewis (1973) discussed transmission of cultural traditions and the need and desire to leave a legacy as being important. Seniors feel the need to share their experiences with the young. This concern for guiding the next generation involves the acceptance of meaningfulness of one's own life.

Research based on intergenerational programs in dealing with these theories has focused on volunteerism and how it relates to seniors' life satisfaction, self-esteem, general health/functional status, and socioeconomic status (Cohon, 1989). In this report, it was stated that there is a positive effect on those who are actively involved in and contributing to their community. These seniors feel better about themselves, are healthier, and are more active and independent.

Child development theories also provide a conceptual framework for intergenerational programs. Havighurst, Neugarten, and Tobin (1973) have reported on the movement away from the three generation nuclear family. Increases in the number of single parent families and the breakdown of

the extended family, demonstrate the need for intergenerational programs as a means of providing opportunities for young and old to interact in meaningful and positive ways. This interaction should contribute to the cognitive and affective development of children.

Project Main in Portland, Oregon, Off Our Rocker in Texas, Celebration of Growing Older and Teaching and Learning About Aging in Boxborough Regional School District in Massachusetts, Age Doesn't Matter in Omaha, Nebraska and Partners at Risk: Elder Mentors and At Risk Youth in Ann Arbor, Michigan are examples of this type of program currently in place in the United States. In fact, Tice (1985) has reported that programs bringing seniors and children together can be found in every state. This information about intergenerational programs was compiled through surveys by the Center in Support for Intergenerational Education, Service and Research (1985), in Ann Arbor, Michigan.

In Canada, in 1985, Shipman reported that nearly three hundred senior citizens were working in Metropolitan Toronto schools. Since that time the North York Board of Education has implemented an intergenerational program for its elementary schools. As well, a number of other boards of education in the province have similar projects in place. A survey of selected intergenerational programs compiled by the Ontario Ministry of Community and Social Services in

1987 indicated that more than 50 intergenerational programs were in place in Ontario. These programs all are aimed at bringing seniors, children and young people together in a number of different locations such as schools, homes for the aged, nursing homes and in seniors' own homes in the community. Examples of these programs, as indicated by Shipman (1985), include the 4C Program at McMaster Medical Centre, Students Outreach to Seniors in London, Snow Connections in North York and Senior Tutors Assisting Children (STAC) in Toronto (Office of Senior Citizens' Affairs, 1987).

However, numerous as these programs are, Seefeldt (1987) has reported that research offers inconsistent findings on the efficacy of these programs and contacts with older people. These inconsistent findings may partly be based on the different research methodologies used.

For the purpose of this study, the following section outlines research that has been conducted to evaluate intergenerational programs. The review includes research involving children as subjects, followed by research involving teachers and their attitudes towards these programs and finally research which evaluated programs from the seniors' perspective.

Corbin, Kagan, and Metal-Corbin (1987) conducted a research study to evaluate a seven day intergenerational program called Age Doesn't Matter. Quantitative methods

were used to describe what occurred on a daily basis between 21 Grade 6 children and older participants. The results indicated that the children's global affective perceptions of older adult visitors grew less positive as the program progressed.

Another study by Dellman-Jenkins, Lambert, Fruit, and Dinero (1986) attempted to change young children's attitudes toward seniors. Although the sample size was relatively small (n = 30) and most of the subjects in the control group were female, the findings based on the CATE questionnaire, indicated that interaction with seniors in the classroom did positively change three and four years olds' perception toward aging and the aged.

Newman (1982) tested the effects of consistent social contact with the elderly on children's attitudes toward old age. A program was implemented that involved weekly interaction between seniors and children over a period of two years. Questionnaires, logs and teachers' reports were used to collect information about the program each year. The results indicated a positive change in children's attitudes as a function of contact with the elderly. Children involved in the program for the two years showed significantly higher scores than the group involved in the program for one year.

Baggett (1981) used the CATE questionnaire to examine attitude changes of five to nine year old children toward

seniors as a result of an intergenerational volunteer program called Off Our Rocker. Results indicated that the experimental group's attitude remained relatively stable. In the control group, there was a significant decrease in negative responses to active things done with older people. In addition, positive attitudes toward the concept of old were found in the control group. The authors concluded that the program had little or no affect in changing attitudes towards seniors.

Similarly, a study by Allred and Dobson (1987) tried to determine if there was a change in children's attitudes towards aging after intergenerational contact with nursing home residents. Results indicated only a small positive shift in children's mean scores following intergenerational interaction with nursing home residents.

The CATE questionnaire was used in a study by Davis and Westbrook (1981) to measure the effects of an intergenerational educational program developed for ten and eleven year old students. Results indicated that the experimental group became sufficiently comfortable, familiar and curious about the elderly. This increased significantly the percentage of older people they spoke with and interacted with outside the classroom.

Positive results of an intergenerational program were found in a study conducted by Olejnik and LaRue (1981). These results indicated that after two months of

intergenerational contact between a group of sixth, seventh, and eighth graders and older people, there was a change in the adolescents' perception of the aged. This perception became less negative and less stereotypical. Girls' perception changed more than boys' and they were more willing to interact with the elderly. The changes were greater among the younger adolescents.

Carney, Dobson, and Dobson (1987) studied the self concept of children and seniors based on a grandparent program in which opportunities were provided for seniors to engage in meaningful activities with children. These activities included remedial help, sharing of stories and helping with arts and crafts projects. Results indicated a significant increase in the mean self concept score from 61.9 to 65.8 for children in Grade Three (n = 20) but not for Grade Four (n = 19). The Grade Four mean scores decreased from 61.9 in the pretest to 58.3 in the post test (p <.05). Self concept was measured by Piers-Harris.

A study was conducted by Public/Private Ventures, a non-profit program development and research organization (Freedman, 1989). The study was designed to provide a better understanding of what happens when older people and academically and socially at-risk youth are brought together. Five intergenerational programs were studied and the benefits to the youth involved were examined. The results indicated that in all five programs, exposure to

elders for youths improved the quality of their day to day lives. They also learned a variety of functional skills such as reading and writing as well as computer skills. Seniors helped the adolescents develop a social network.

Little, if any, formal research has been conducted to evaluate intergenerational programs from a teacher's perspective. An intergenerational program was initiated by Friedman (1988) in a Grade Four classroom in a school in Westwood, Massachusetts. Teachers in this program informally noted that students grew more responsive and excited about the program as it progressed. Teachers also noted changes in students' attitudes toward seniors. No formal research was conducted on this program.

In the Carney et al. (1987) study, qualitative information was gathered from the teachers involved in the study. The teachers' subjective evaluations of student behaviours, attitudes, and interpersonal relationships indicated that they believed that children's self concept were improved. As well, teachers reported fewer incidents of discipline problems as the program progressed.

While no studies were located dealing with the impact of seniors on children's behaviour, a considerable amount of research exists on children's behaviour. Development of appropriate behaviour and adequate social skills is important to a child for a number of reasons (Gresham, 1981). Underachieving children have been reported as

exhibiting poorer classroom behaviour and as having more problems with their peers. These children were distractible and inattentive (Day & Peters, 1989). Teachers are in a unique position to observe children's behaviour (Phinney, 1982). Behavioural observations recorded through the use of checklists have been used to assess traits such as aggressiveness, disruptive behaviour, and interaction skills (Gresham, 1981).

Behaviour rating scales, based on direct observation of children have been used in a variety of contexts and situations for different purposes. One such purpose is for research (Bullock et al. 1988). These direct observations can provide a quantitative and qualitative record of behaviour in a natural setting. Greenwood, Walker, and Hops (1977) have reported that rating scales are accurate predictors of children's behaviour.

A great deal of variability exists in the format, length, rating procedures, scoring procedures, and interpretation of behaviour rating scales (Bullock et al., 1988). One such rating scale is the Behaviour Dimensions Rating Scale (BDRS) (Wilson & Bullock, 1989). This scale contains 30 pairs of adjectives describing children's behaviour. Bullock et al. (1988) examined the reliability and validity of 6 different rating scales. The BDRS was reported as having the highest estimate of internal consistency reliability as well as acceptable test-retest

reliability estimates. For the purpose of this study, a revised form of the BDRS was used to measure children's behaviour.

Since no literature was found that measured or evaluated a change in teachers' attitudes towards seniors as a result of an intergenerational program, there is a need for research into evaluating intergenerational programs from the teachers' perspective.

Marks et al. (1985) conducted a study to measure the effects of a school volunteer experience on 180 senior volunteers. Although there were limitations to this study based on the validity of the instrument used (Questionnaire for School Volunteers), the authors concluded that there was evidence to support the position that the volunteer experience does positively affect the psychological well-being of the seniors involved.

Disch and Moody (1989) carried out an Intergenerational Life History Project between 17 elderly people and 45 young people. Four assessment instruments were used to measure changes in self-esteem and attitudes. These instruments included the Bradburn Affect-Balance Scale (Bradburn, 1969); Rosenberg Self Esteem Scale (Rosenberg, 1965); a six item Trust in Young People Scale and a General Reaction Survey that focused on attitudinal, cognitive and behavioral changes as a result of the program. Although questions were raised about the reliability and validity of the first two

measures, improved self concept was reported for both groups. As well, both groups reported positively on their overall participation in the project.

In summary, no formal research was located that dealt with the effect of intergenerational programs on learning outcomes of children, on the effects of seniors' presence in the school on children's behaviour, and on teachers' attitudes towards using seniors as a learning resource. However, one could intuitively predict that favourable outcomes would follow intergenerational programs.

CHAPTER II

Methodology

Setting

The study was implemented in a rural, dual track, French Immersion elementary school of approximately 500 children. This composite school serves the local community which includes a small village. All students are bussed into the school.

This school has been identified as having a large proportion of high risk children. The indicators for this designation include low socio-economic conditions, identified health concerns and school statistics. The community has also been identified as being a high risk area based on socioeconomic conditions and identified health concerns. It is a blend of stable rural extended families and low income single parent families who reside in the village.

Sample

The student sample was drawn from within the school's student population. Four junior division classrooms participated in the study to generate a sample of 102 children. Within this sample, the number of students in Grade Four was 47, in Grade Five the number was 32, and in Grade Six, the number was 23. Whole classrooms were assigned to the experimental group (n = 58) and control group (n = 44). The two classrooms in the experimental

group, a Grade Four and a Grade 5/6 class, received all of their instruction in English. The two classrooms in the control group, a Grade Four and a Grade 5/6 class, were French Immersion. Classrooms were grouped in this way because of timetabling limitations. The Grade Four French Immersion students received instruction in English during the first quarter of the day. It was only possible to schedule seniors into classrooms during this time period. Similar scheduling problems existed with the Grade 5/6 French Immersion class. The teachers of the Grade Four and Grade 5/6 English classrooms frequently combined and shared activities since their time for environmental studies occurred during the same quarter of the day.

The four classroom teachers, a teacher librarian, and a resource teacher from the school were recruited for the program. Included in this sample were three male teachers and three female teachers. Two of the teachers had over twenty years teaching experience, one had from 10 to 19 years experience and three of the teachers had less than 10 years of experience.

The study recruited 23 senior citizens, aged 65 years and over, from the surrounding community to plan the program. Fourteen seniors involved in the planning sessions volunteered to implement the program with the children's experimental group (two classrooms).

The living history unit was implemented by the senior

volunteers with the experimental group.

Instrumentation

To test for children's learning outcomes, a standard curriculum unit test was written by the teachers after the content of the program had been developed. See Appendix B for the curriculum test.

Student behaviours were recorded on video tape during the intervention. Video tapes of the same students were also made in classroom situations not involving interaction with seniors so that comparisons of students' behaviours could be made between the two settings.

A tally sheet adapted from the BDRS (1989) was used to measure student behaviour as shown in Appendix C. Criteria used to measure behaviour focused on four behavioural factors: Disruptive, Needs Attention, Inattentive, and Distracted. For the purpose of this study, disruptive behaviour was defined as behaviour in which a student interfered with another student either physically or verbally. Needing Attention behaviour was defined as behaviour in which the teacher had to interact with a student. Inattentive behaviour was defined as behaviour in which a student was off task yet not interfering with another student. Distracted behaviour was defined as behaviour in which a student was momentarily off task but did not interfere with another student.

Teachers' attitudes towards the use of seniors as

volunteers in schools were measured using a questionnaire which required responses on a six point Likert scale and open ended questions. See Appendix D for a sample of the questionnaire.

Procedure

This study was set up as an experimental comparison group design research project. It examined the effect of an intergenerational program on children's behaviour and learning outcomes. The study, based on local history, also surveyed teachers' attitudes towards the use of seniors as a potential learning resource.

Children from four classrooms were divided into experimental and control groups. The experimental group had an opportunity to interact with each of the 14 seniors for ninety minutes a day for four weeks in April. The control group only interacted with teachers during the same unit of study.

The seniors, teachers from the experimental group and the authors were involved in two planning sessions to develop the content of the program. Topics cooperatively developed for the unit included historical aspects of lighting, trapping and hunting, education, agriculture, family activities and local history. A timetable was produced at the request of the seniors and teachers. The sessions with the seniors were generally followed by activities initiated by the teacher such as journal writing

and discussions. The same topics were taught by teachers to the control group. The control group had an opportunity to interact with the seniors after the study was completed.

To test children's learning outcomes on the curriculum unit, the experimental and control groups were given a paper and pencil test as shown in Appendix B. The independent variable was the method of instruction. For the experimental group, instruction was provided by the seniors and for the control group, instruction was provided by teachers through the use of print resources.

Teachers were provided with a written set of instructions to ensure consistency of testing procedures. These instructions included length of time provided to write the test. In addition, teachers were only allowed to clarify the children's questions prior to the writing of the test. The children were asked to complete the test on their own. The children's curriculum tests were completed during class time. These tests were numerically coded and scored.

The control group interacted with teachers during the same unit of study. The curriculum test score data collected from the experimental group was compared to the control group's to analyze the effects of the program.

A video camera was set up in each experimental group classroom to record group behaviours. An observation tally sheet as shown in Appendix C was used to record children's behaviours with the seniors present and with the teachers

present. Only the experimental group was taped. Videos were subsequently viewed by the authors. The tapes were stopped at random points and a tally was taken of the four behaviours observed at that point. These points were referred to as snapshots. Tapes were stopped at 100 different points for the teachers and at 100 different points for the seniors. Results were tallied for each of the four behaviours. The number of students in each snapshot was recorded. Video tapes were dated, coded, and stored by one of the authors. An independent rater viewed and tallied the four behaviours identified. This independent rater is a public health nurse and a Master of Education candidate.

To examine teachers' attitude in regard to the benefits of the program, the experimental group of teachers was given a questionnaire. See Appendix E for the results. No control group was used.

Teachers' questionnaires were handed out and returned to the researcher at the school. These questionnaires were numerically coded.

Following board approval and an ethical review process, permission for children to participate in the study was obtained from parents as shown in Appendix F. Consent forms as shown in Appendix G and H were also obtained from the teachers and the seniors.

The data analysis for the intergenerational study

was achieved using Epi Info 5.01 and SYSTAT programs. These are word processing data base and statistical programs for micro computers. All data were coded by the authors before being entered into EPI5 and SYSTAT. The frequency and tables command in Epi Info 5.01 provided automatic calculation of descriptive statistics for data such as sex, age, grade, location and other dependent variables. The advanced statistical analyses were computed using the SYSTAT program.

The independent variable in this study was the instructional program that involved either seniors working in the classroom with the children or the teachers involved in regular classroom programming. The dependent variable was the children's learning outcomes. In addition, children's behaviours in the presence of seniors versus teachers and teachers' attitudes towards the use of seniors as a learning resource in the school system, were monitored.

CHAPTER III

Results

Curriculum Test

A curriculum test was used to compare test scores for the experimental and control groups. Means and standard deviations for control and experimental groups were computed for total test scores, factual question test scores, and subjective question test scores as shown in Table 1. For the purpose of analysis, factual questions were defined as questions requiring recall of information. These included questions one, two, three, four and seven. Subjective questions were defined as open ended questions in which more than one correct answer was accepted. These included five, six, eight and nine.

A comparison of the student achievement levels was made between the two groups. See Appendix I for a comparison of student achievement levels. Achievement level was defined as the letter grade average achieved and obtained by the researcher from previous records. These "A", "B" and "C" averages were based on English, mathematics, and social studies grades. "A" achievement level for the purpose of this study is defined as those students having an overall "A" level grade. "B" achievement level for the purpose of this study is defined as those students having an overall "B" and "C" level grade.

An analysis of covariance was computed to control for

prior differences in achievement levels between the two groups as shown in Table 2 ($p < .05$). There were more A achievement level students in the control group (61.4%) than in the experimental group (38.6%) ($p < .05$). See Appendix I for results. This reflects the initial group differences and provides a rationale for attempting to control for these initial group differences.

In this analysis, the independent variable was the intergenerational program. The dependent variable was the test scores. The covariate was the student's prior achievement level. Results of the ANCOVA for the total test scores, factual question test scores, and the subjective question test scores indicated that there were no significant differences ($p < .05$) due to the treatment condition as shown in Table 2.

Table 1

Means and Standard Deviations for Experimental and Control Groups' Total Test Scores, Factual Question Test Scores and Subjective Question Test Scores

	Experimental		Control	
Scores	Mean	SD	Mean	SD
Total test scores	7.511	3.33	7.878	2.63
Factual test scores	4.178	1.66	4.244	1.14
Subjective test scores	3.333	2.17	3.634	1.81

Table 2

Analysis of Covariance to Control for Achievement Level Between the Experimental and Control Group for Total Test Scores, Factual Question Test Scores and Subjective Question Test Scores

Categories	Group	df	F-ratio	P
Total test scores	Treat.	1	0.203	0.947
	X	1	27.704	0.000
	Treat*X	1	0.050	0.824
	Error	82		
Factual test scores	Treat.	1	0.933	0.337
	X	1	11.902	0.001
	Treat*X	1	0.616	0.435
	Error	82		
Subjective test scores	Treat.	1	0.005	0.947
	X	1	26.806	0.000
	Treat*X	1	0.071	0.790
	Error	82		

X = covariate (achievement)

Behaviour Tally

A tally sheet, as shown in Appendix C, was used to record incidents of the four different types of behaviours with the seniors and with the teachers. Only the experimental group was used to measure behaviours. Data pertaining to sample size and four behaviour types in each snapshot is presented in graph form. Snapshot is defined as a frozen frame of the video taken at random points on the tape. The tables are presented in the appendices. The number of students in each video sample for both seniors and teachers is presented in Figure 1. The number of occurrences of each type of behaviour measured with seniors and teachers is presented in Figures 2-5.

Interrater reliability was computed using the Pearson Product Moment Correlations for each of the four behaviour types both with seniors and with teachers as shown in Table 3. The researcher and the independent rater viewed the videos separately. The same tally sheet was used. Snapshots were taken at random points on the videos and the behaviour observed was recorded on the tally page. Coefficents were computed between the data recorded by the researcher and the independent rater for ten percent of the snapshots. Reliability was low in some areas, therefore, caution is warranted in the interpretation of the children's behaviours.

Table 3

Test for Interrater Reliability on Ten Snapshots with Teachers and with Seniors.

Behaviour	Seniors	Teachers
	r	r
Disruptive	0.49	0.78*
Need Attention	Err	0.96*
Inattentive	0.74*	0.56
Distracted	0.69*	0.59

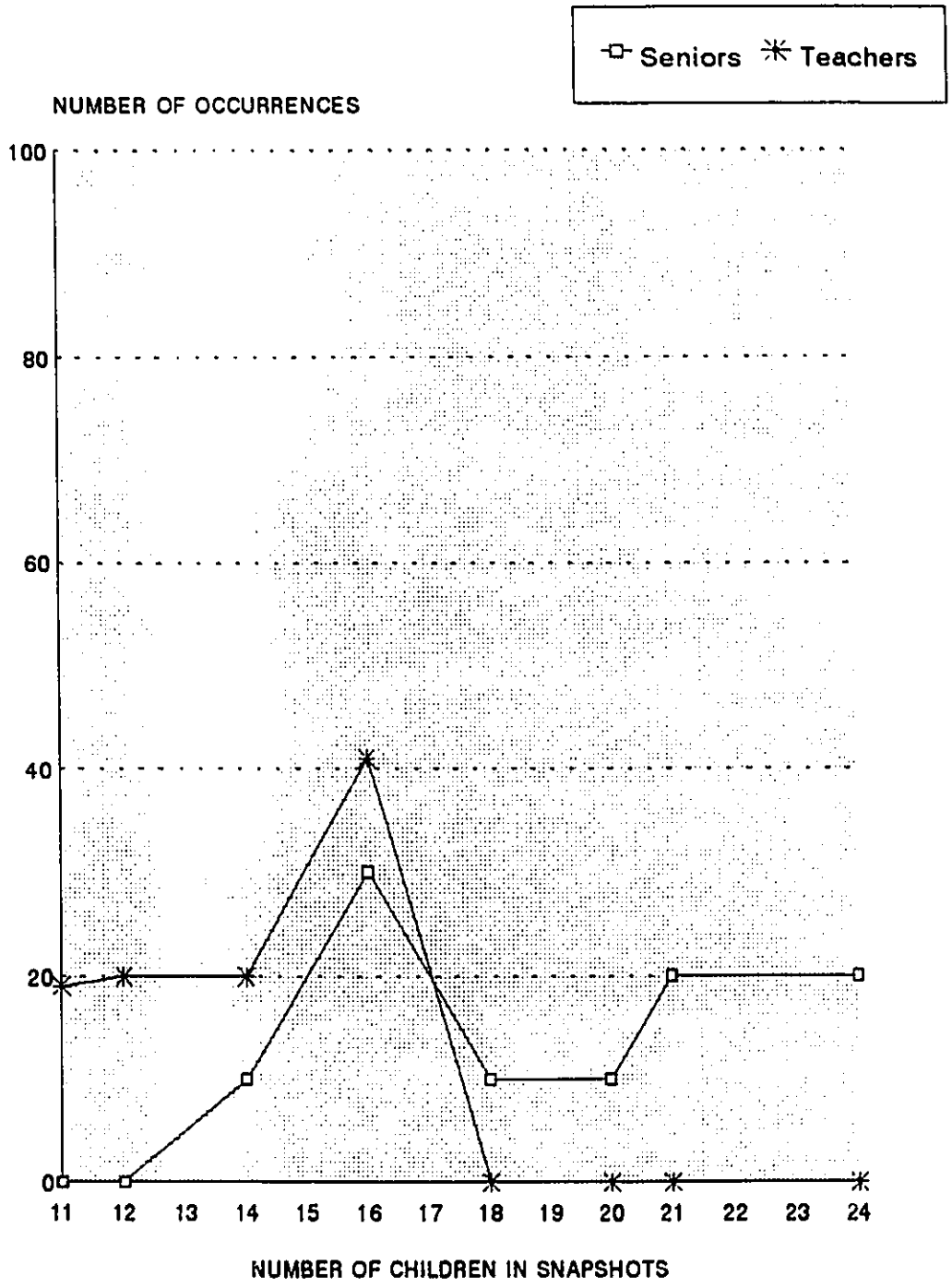
Err = perfect agreement between raters that there were no children needing attention in the presence of seniors. Therefore, r was not computed.

* = $p<.05$

For the purpose of further analysis, each type of behaviour was grouped into two categories. Thus, for example, a child's behaviour was defined as disruptive if there were three or more incidents of disruption. If there were two or less incidents of disruption, the child was considered non-disruptive as shown in Table 4. Cross tabulations were made between the incidents of the four identified behaviours with seniors and with teachers as shown in Tables 4-7.

Figure 1 shows that the number of students in the snapshots was greater with the seniors than with the teachers. The sample size for the seniors ranged from 14 to 24 and the mean was 19, standard deviation was 3.5. The sample size for the teachers ranged from 11 to 16 and the mean was 14, standard deviation was 2.2. The difference between the two group means was significant $t(18) = 3.98$, $p<.001$. See Appendix J for the sample size of the snapshots.

Figure 1. Number of occurrences of the sample size of children with either teachers or seniors present

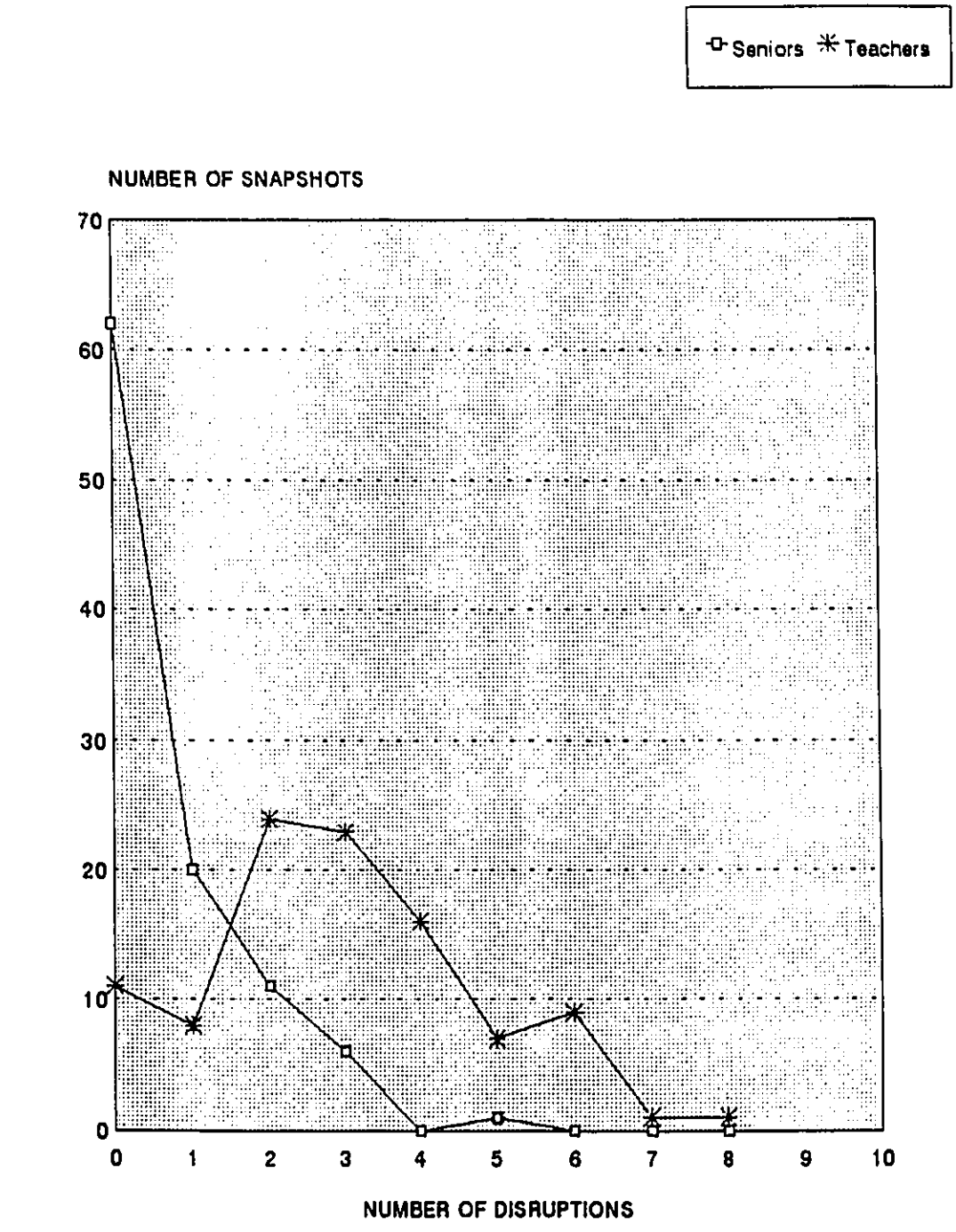


(from 100 "snapshot" observations of videotape)

Figure 2 shows the number of disruptions with either teachers or seniors. The disruptions for the seniors ranged from zero to five and for the teachers from zero to eight. There were significantly more snapshots with no disruptive behaviour with the seniors than with the teachers. There was a higher number of disruptions with the teachers. The mean for the teachers was 21 and the standard deviation was 13.5, whereas for seniors the mean was 3.7 and the standard deviation was 6.4. The difference between the two group means was significant $t(198) = 10.84$, $p<.000$. See Appendix K for the frequencies and proportions. The interrater reliability coefficent for seniors was 0.49 and for teachers it was 0.79 as shown in Table 3.

Table 4 shows there were more incidents of students' disruptive behaviour with teachers (3 to 8 range) than with the seniors. A Chi square analysis revealed a significant difference $X^2(1, N = 100) = 57.44$, $p < .05$. Data for Table 4 was compressed from frequencies and proportions in Appendix K .

Figure 2. Number of snapshots showing a given number of disruptions with either teachers or seniors present.



(from 100 'snapshot' observations of videotape)

Table 4

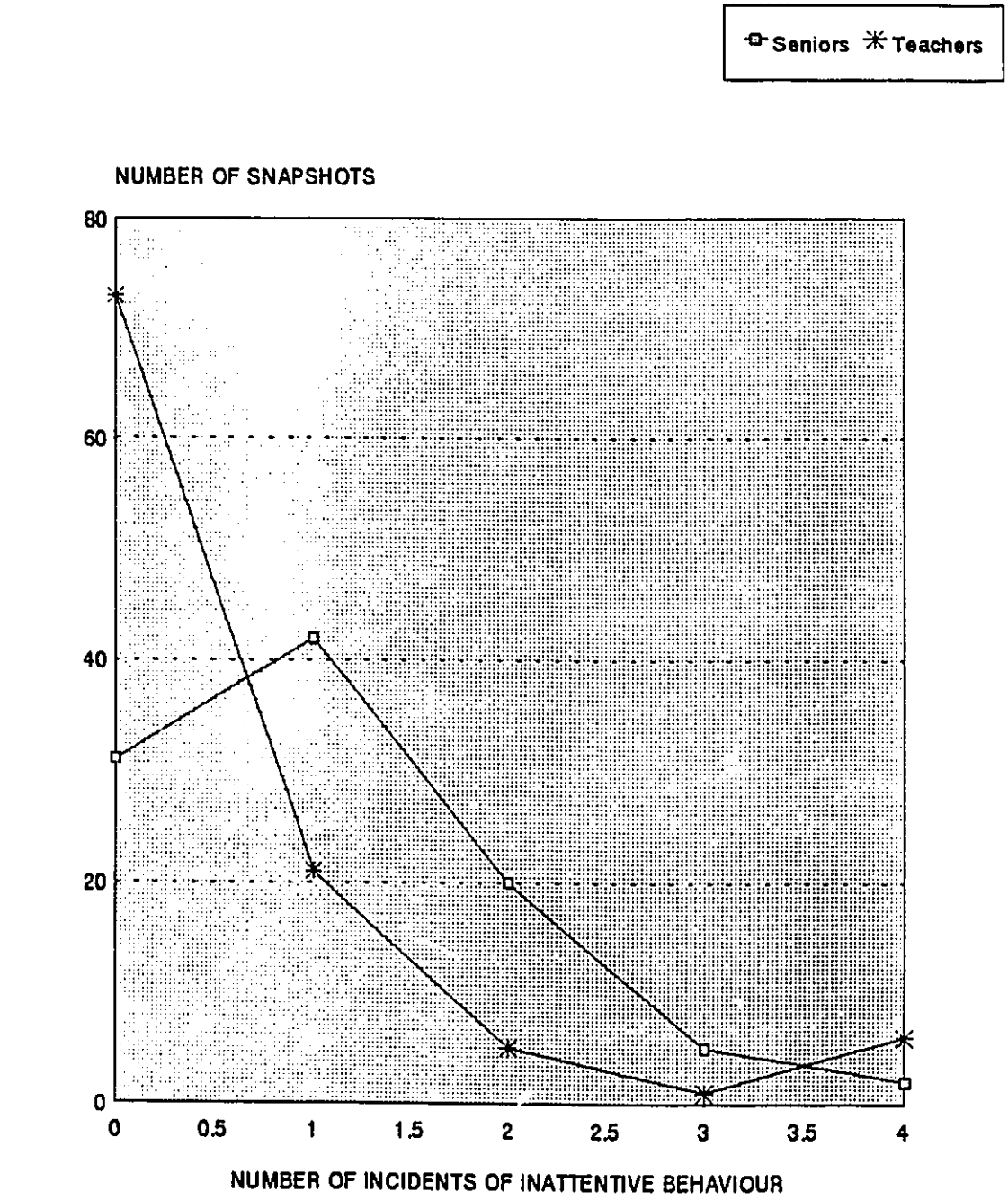
Number of Incidents of Students' Disruptive or non-Disruptive Behaviour with Either Teachers or Seniors Present

Behaviour	Senior	Teacher	Total
Disruptive	7	57	64
	10.9%	89.1%	32.0%
	7.0%	57.0%	
Non disruptive	93	43	136
	68.4%	31.6%	68.0%
	93.0%	43.0%	
Total	100	100	200
	50.0%	50.0%	

Figure 3 shows the number of incidents of students' inattentive behaviour with either seniors or with teachers. Overall, the number of incidents of inattentive behaviour in the snapshots was greater with the seniors. The mean was 5.8 and the standard deviation was 5.3. The mean for the teachers was 2.5 and the standard deviation was 4.5. The difference between the two group means was significant $t(198) = 6.26$, $p<.000$. See Appendix L for the frequencies and proportions. The interrater reliability coefficent was 0.74 for seniors and 0.56 for teachers as shown in Table 3.

Table 5 shows that there were more incidents of students' inattentive behaviour with the seniors than with the teachers. A child's behaviour was defined as inattentive if there were two to four incidents of inattentiveness. If there was one or less incidents of inattentiveness, the child was considered attentive. A Chi square analysis revealed a significant difference $X^2(1, N = 100) = 16.00$, $p < .05$. Data for Table 5 was compressed from frequencies and proportions in Appendix L.

Figure 3. Number of snapshots showing a given number of incidents of inattentive behaviour with either teachers or seniors present.



(from 100 'snapshot' observations of videotape)

Table 5

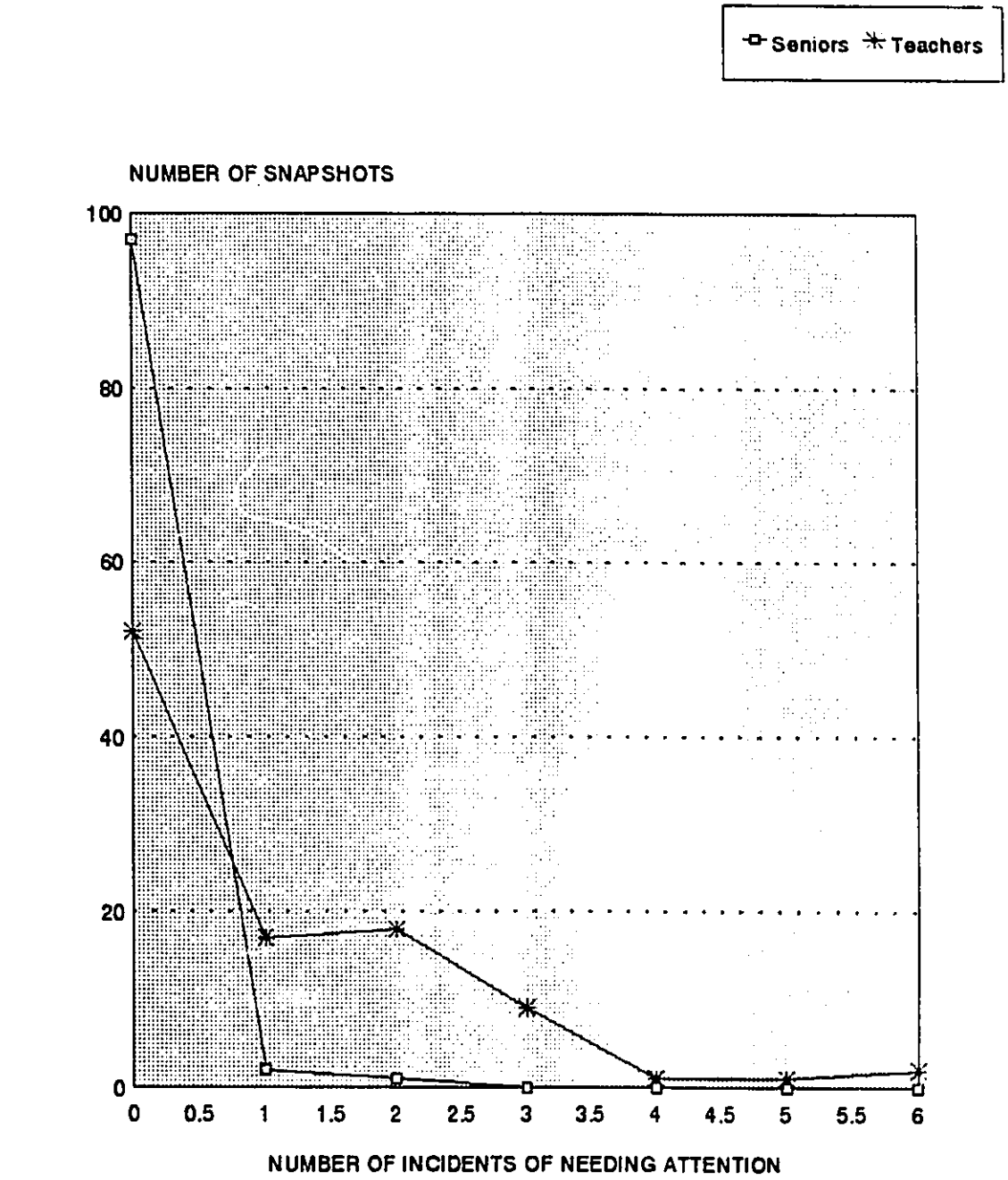
Number of Incidents of Students' Attentive or Inattentive Behaviour with Either Teachers or Seniors Present

Behaviour	Senior	Teacher	Total
Inattentive	27	6	33
	81.8%	18.2%	16.5%
	27.0%	6.0%	
Attentive	73	94	167
	43.7%	56.3%	83.5%
	73.0%	94.0%	
Total	100	100	200
	50.0%	50.0%	

Figure 4 shows the number of incidents of students' needing attention with either seniors or with teachers. Overall, the number of incidents of needing attention in the snapshots was greater with teachers than with the seniors. The mean for the seniors was 0.25 and the standard deviation was 1.28. The mean for the teachers was 6.9 and the standard deviation was 9.0. The difference between the two group means was significant $t(198) = 6.99$, $p<.000$. See Appendix M for the frequencies and proportions. When testing for interrater reliability, neither the researcher or the independent rater found any incidents of needing attention behaviour with seniors. The coefficent for the teachers was 0.96 as shown in Table 3.

Table 6 shows that there were no incidents of students' needing attention behaviour with the seniors in the three to six range whereas with the teachers there were 13 incidents. A child's behaviour was defined as needing attention if there were three to six incidents of needing attention. If there were two or less incidents of needing attention, the child was considered not needing attention. A Chi square analysis revealed a significant difference $X^2(1, N = 100) = 13.90$, $p < .05$. Data for Table 6 was compressed from frequencies and proportions in Appendix M.

Figure 4. Number of snapshots showing a given number of incidents of students needing attention with either teachers or seniors present



(from 100 "snapshot" observations of videotape)

Table 6

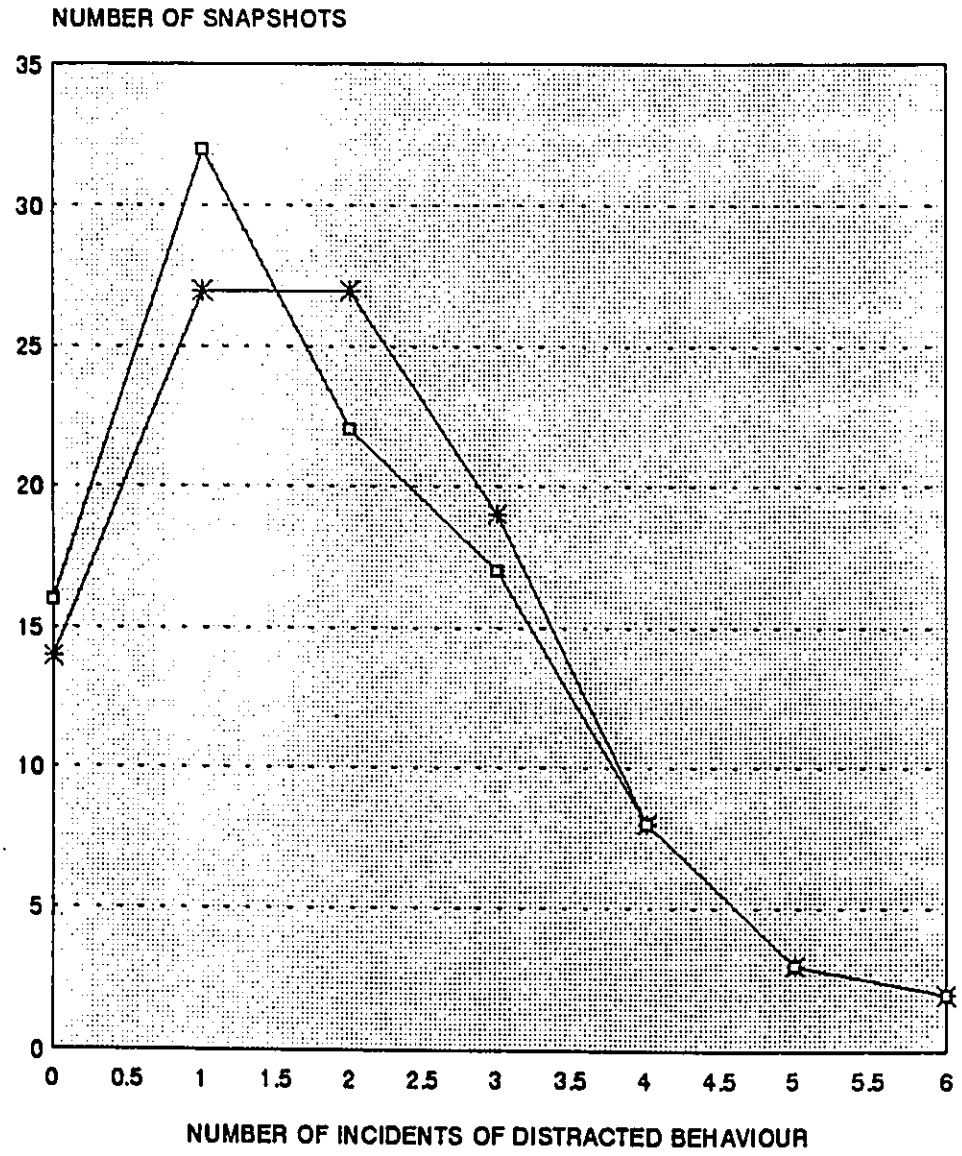
Number of Incidents of Students' Needing Attention or not Needing Attention Behaviour with Either Teachers or Seniors Present

Behaviour	Senior	Teacher	Total
Needing attention	0	13	13
	0.0%	100.0%	6.5%
	0.0%	13.0%	
Not needing attention	100	87	187
	53.5%	46.5%	93.5%
	100.0%	87.0%	
Total	100	100	200
	50.0%	50.0%	

Figure 5 shows the number of incidents of students' distracted behaviour with either seniors or with teachers. The mean for the seniors was 10.0 and the standard deviation was 8.4. The mean for the teachers was 14.0 and the standard deviation was 10.0. The difference between the two group means was not significant $t(198) = 0.50$, $p<0.618$. See Appendix N for the frequencies and proportions. When testing for interrater reliability, the coefficent for seniors was 0.69 and for the teachers it was 0.59 as shown in Table 3.

Table 7 shows that there were no significant differences in the incidents of distracted behaviours. A child's behaviour was defined as distracted if there were three to six incidents of distraction. If there were two or less incidents of distraction, the child was considered not distracted. A Chi square analysis revealed no significant difference. Data for Table 7 was compressed from frequencies and proportions in Appendix N.

Figure 5. Number of snapshots showing a given number of incidents of distracted behaviour with either teachers or seniors present



(from 100 'snapshot' observations of videotape)

Table 7

Number of Incidents of Students' Distracted or non-Distracted Behaviour with Either Teachers or Seniors Present

Behaviour	Senior	Teacher	Total
Distracted	30	32	62
	48.4%	51.6%	31.0%
	30.0%	32.00%	
Not distracted	70	68	138
	50.7%	49.3%	69.0%
	70.0%	68.0%	
Total	100	100	200
	50.0%	50.0%	

Teachers' Questionnaire

A posttest questionnaire, as shown in Appendix E , was used to measure teachers' attitudes towards the value of an intergenerational program and using seniors as volunteers in the schools.

The teachers' responses indicate that they agree with both the value of the intergenerational program and the use of seniors as volunteers in the school. All the teachers stated that they would ask seniors to volunteer in the school again as shown in Appendix E .

CHAPTER 1V

Discussion

The three purposes of this study were to examine the effects of an intergenerational program on children's learning outcomes, children's behaviours, and teachers' attitudes towards the use of seniors as volunteers in schools.

The first purpose of this study was to examine the effects of an intergenerational program on children's learning outcomes. Results indicated that the intergenerational program did not positively affect children's learning outcomes. When comparing results of the control and experimental groups' total test scores, factual test question scores and subjective test question scores using an ANCOVA, there was no significant difference between groups as shown in Table 2.

Initially, the researchers felt that the results may have been affected by the way in which the sample was selected. The children were chosen from four specific classrooms of differing achievement levels. After examining these results, the researchers looked at the achievement level of the students in the sample to control for this effect. Significant results were found when comparing the student achievement levels of the two groups as shown in Appendix I. The proportion of "A" achievement level students in the control group was 1.6 times greater than the

level of "A" achievement level students in the experimental group. Conversely, the proportion of "B" achievement level students in the experimental group was 2 times greater than the number of "B" achievement level in the control group. One would have expected the A achievement level students to get higher scores. However, after controlling for the covariate of achievement, no significant results were found.

Seefeldt (1987) reviewed the literature and reported inconsistent findings on the efficacy of intergenerational programs. She indicated that these findings may have been due to different research methodologies used. The author of this study was not able to locate any formal research studies dealing with the effect of these programs on children's learning outcomes.

In support of this program, Cohon (1989) has stated that intergenerational programs provide opportunities for mutual support between generations. Seniors can share knowledge and information with children. Havighurst, Neugarten, and Tobin (1961) stated that the interaction between generations should contribute to the cognitive development of children. Levin (1980), Neuhaus and Neuhaus (1982), and Shipman (1985) support the idea that seniors can enhance children's knowledge of what the olden days were like.

In this study, there were many opportunities for seniors to share their knowledge and expertise with the children.

Seniors had the children actively involved in making rope, butter and butter milk, spinning wool, tying quilts, making horseshoes and using school materials from the turn of the century. One of the seniors built display cases and filled them with tools from the late 1800's. Another senior planned her activities around the theme of lighting, past and present. One senior brought in and discussed Indian artifacts, relating these treasures to local history and geography.

The second purpose was to examine children's behaviours. In examining the effects of an intergenerational program, a behaviour rating scale adapted from the BDRS (Wilson & Bullock, 1989) was used to tally and record four types of student behaviours. The types of behaviours directly observed were disruptive, inattentive, needing attention, and distracted behaviour. This rating scale used a direct observation technique. Phinney (1982) has reported that observation is an important tool in gaining an understanding of traits of children. Greenwood et al. (1977) has also reported that rating scales are an accurate predictor of children's social behaviours.

The findings of this study indicated significant results for three of these behaviours. These included disruptive, inattentive, and needing attention behaviour. In discussing the significance of the findings of this study, it should be noted that the sample size observed for

tally purposes was greater with the seniors than with the teachers as shown in Figure 1. On average, the sample size was 1.4 times greater for the seniors than for the teachers.

Significant findings from this study showed fewer incidents of disruptive behaviours with the seniors than with the teachers (See Figure 2). The incidents of disruptive behaviours that were not acceptable were 8.2 times greater with teachers than with seniors. These results may have been affected by the fact that children were not disruptive since the seniors were guests in the classrooms. Teachers' expectations when guests are present may have influenced the children's behaviour.

When observing for the incidents of children exhibiting inattentive behaviour, there were 4.5 times greater incidents of attentive behaviour with teachers than with the seniors. See Figure 3 for results of the tally. Conversely, there were no incidents of "needing attention" behaviour with seniors as shown in Figure 4.

A possible explanation for the difference in incidents of disruptive and needing attention behaviours can be related to the study conducted by Bergman and Cybulski (1980). In this study, children regarded seniors as a resource for learning. Peacock and Talley (1984) also reported that intergenerational programs provided for positive, meaningful interaction between age groups. The findings of this study support the results of a study by

Havighurst et al. (1973). He stated that interaction provided through intergenerational programs should contribute to the affective or social development of children. The children in this study may have viewed the seniors as warm and caring individuals and therefore they behaved in an appropriate manner for them.

Results of this study also support the findings of Carney et al. (1987). Carney et al. using qualitative research based on information gathered from teachers' subjective evaluations of children, reported fewer incidents of discipline problems as the intergenerational program progressed.

This intergenerational program thus provided opportunities for seniors to contribute to the affective development of the children involved. Overall, the incidents of behaviour problems were not as frequent with the seniors as with the teachers even though the seniors tended to have a larger group of children with them. This is important when considering the breakdown of the nuclear and extended family systems. Through increased contact, the elderly can become positive role models for children and thus influence their moral and personal development.

The third purpose of this study was to examine the effects of an intergenerational program on teachers' attitudes towards the use of seniors as volunteers in schools. This was based on the premise that increasing

opportunities for interaction between two different cohort groups would reduce the barriers to the use of seniors as volunteers (Palmore, 1980; Novak, 1988; Southall, 1984; Murphey et al., 1982). No formal research studies were located to measure the effects of an intergenerational program on changing teachers' attitudes towards using seniors as a learning resource.

From an ideological perspective, one issue has been addressed in the study. The issue relates to mutual support and dependence between generations for the transmission of culture and knowledge. Teachers in this study reported that they found that seniors had knowledge and skills to share with children.

Teachers and seniors were collaboratively involved in the planning and implementation of the program. The framework and content were developed in two planning sessions at the school. Twenty three seniors voluntarily participated in these meetings and 14 of them self selected topics to present to the children.

Teachers and seniors in open discussions, agreed on the topics to be presented to the children, timetabling of class presentations, and division of tasks and responsibilities. Seniors assumed responsibility for their teaching content, materials and presentation of topics. They involved their neighbours, friends and family in this process. Teachers expressed amazement and enthusiasm at the creativity and

willingness of the seniors to participate in the program. A schedule for each segment of the program was developed by both the seniors and teachers with very few problems.

Results from the teachers's attitudes questionnaire as shown in Appendix E, indicated that teachers had very positive feelings about the program. They reported a belief in the benefits of more community involvement, that seniors have valuable knowledge and skills to share with children, and are a valuable learning resource. They reported having greater respect for seniors and their contribution to the program as well as being surprised at the response and willingness of seniors to participate. Teachers reported that the best parts of the program were interaction between children and seniors, enthusiasm displayed by seniors, and the responses of the students to the seniors. All teachers reported that they would ask seniors to volunteer again.

Limitations of the Study

The following limitations should be considered in conducting further research in this area. The study should be replicated in different settings using a larger population and sample. The student sample size in this study for tally purposes varied from $n = 11$ to $n = 24$. The sample size for curriculum testing was $N = 86$. The selection of students should have been randomized across the grades rather than recruiting students from whole classrooms. This randomization would have controlled for

the achievement levels of the control and experimental groups.

Sample size of the teachers was small (n = 6). In addition to a larger sample of teachers, the study should be replicated in different schools. This study was conducted in a rural elementary school. The results may be different in an urban setting.

The curriculum test used in this study was administered by the classroom teacher. To control for this variable, one person should have administered the test to all students in the sample to ensure uniformity of the testing format. To also insure testing consistency, it should have been administered at the same time of the day. The time of day the program and the test were completed was affected by timetabling schedules. Inconsistencies therefore may have resulted.

Achievement levels of students were different in both groups. As a result, there may have been a problem with the interpretation of the questions asked in the curriculum test because of the different reading levels of the students involved. Initial generation of the student sample across different classrooms would have controlled for this factor.

There was no test-retest reliability completed on the curriculum test before it was administered. Repeated administration of the test is needed to assess the reliability of this instrument.

The type of activity must also be considered. Activities with seniors involved large groups of children, whereas activities with teachers involved small groups of children working independently. In addition, activities with seniors involved children using concrete materials such as wool and rope twine. Activities with teachers involved the use of print materials and paper and pencil tasks.

Interrater reliability was not reported for the BDRS (Wilson & Bullock, 1989). The authors of this study trained an independent person to view the videos and tally results for the four behaviours to compare with data recorded by the researchers. Interrater reliability was found to be consistent with the seniors for needing attention and distracted behaviour. It was consistent with the teachers for disruptive and needing attention behaviour.

Inconsistencies between the researcher and the independent rater may be due to what Phinney (1982) has called the halo effect. This refers to the tendency of one observer to see what is expected and to miss what is unexpected. The error of severity must be recognized and corrected. This deals with the tendency of the observer to rate behaviours too harshly. The independent rater was not an educator while the researcher was. Expectations of children's behaviour may have been different. Some behaviours such as distraction are difficult to identify and capture on a video. Behaviours such as disruptions are much

more obvious.

When the seniors were involved with the children, teachers were always present to supervise the children. The presence of the classroom teachers may have influenced the children's behaviours. The children would have been less likely to exhibit negative types of behaviours if they knew their teacher was present. During teacher directed small group activities, usually the teacher was the only adult present in the room as compared with three or four with the seniors.

During taping, children were far more aware of the video camera in sessions directed by the teachers. In these sessions, children intentionally made comments and gestures for the video camera. These actions were all considered in the tally results.

Suggestions For Further Research

Intergenerational programs have been implemented in many forms and locations across North America. The basic premise for initiating these programs lies in the belief that young and old can share ideas and interact in a mutually supportive context.

In a time when the allocation of government funds is closely scrutinized by the public sector as well as various interest groups, programs being offered must prove their utility and viability. Society can not afford to waste money on ineffective and meaningless programs.

If intergenerational programs are to remain viable and active, research must be carried out to provide a statistical base to prove their value and usefulness. For instance, further research should be carried out to examine whether these programs do enhance learning and change behaviours among children.

Teachers in this study felt very comfortable with having seniors take part in their classroom program. Since the seniors and teachers were collaboratively involved in planning the program, trust naturally developed. This is an important factor from both teachers' and seniors' perspective.

Seniors are willing to provide their time, expertise and knowledge at minimal, if any cost, to the taxpayer. The elderly transmit culture and history through their stories and reminiscing. Many have treasure troves of artifacts and are more than willing to share these with children.

This study indicated that seniors can influence the behaviours and attitudes of children. At a time when our society is undergoing significant changes in the family structure, seniors can be a positive role model as well as providing stability for children. Many children need the support of a warm and caring adult. More research is needed to support or refute this claim.

Conclusions

The results of this study support the need for further

research into the effects of an intergenerational program. Although the results did not show significant differences in the curriculum test results, there were significant differences in the behaviours displayed by the children with the seniors and with the teachers.

These results have practical implications for curriculum planning. Curriculum, in this sense, is broadly defined as all of those school experiences that impact on a child. Traditionally, general curriculum guidelines have been mandated by the provincial government in policy statements. It then becomes the responsibility of local boards to develop units of study which are within the parameters of these guidelines. Intergenerational programs can become an integral part of curriculum development and implementation.

These programs would meet many needs and enhance the curriculum. Learning resources, both human and print, have been identified as necessary components of a child centred, active learning environment. Seniors can provide these resources at little or no cost to the tax payer. Through their story telling and sharing of artifacts, they are relating history and providing a link to the past for children. In some instances, they were first hand observers of important historical events. The emotion and enthusiasm seniors display when sharing stories about these events, impacts on children more than it would have had they read

about it in a book. Teachers benefit from the experience of having a valuable learning resource in the classroom.

Recent ministry consultation papers have included community involvement and support as an important issue to be considered in future educational restructuring. One positive result of intergenerational programs addresses this issue. Seniors are an important part of the community. By inviting them into the schools to work with children, ties with the community are strengthened. Not only do seniors gain an appreciation of what goes on daily in schools, they also gain insights into the needs and problems that children experience today. Children, as well, see the seniors as warm and caring adults who have interesting talents and stories to share. There is an exchange of resources in terms of time, knowledge and services. Attitudes children and teachers have about aging and seniors as well as attitudes seniors have about children may be affected positively.

While intergenerational programs can enrich curriculum within the school, other benefits are also accrued. Difficult social problems can be solved through encouraging interdependence between the generations. Concern about social isolation both for the young and the old is addressed. As the number of single parent families and working mothers increases, children are left frequently on their own. For seniors, changes in the traditional extended

family structure, have frequently left them alone without any help or support. Intergenerational programs provide opportunities to increase the contact that these two cohort groups might not otherwise have had.

Intergenerational programs also address the issue of competition for limited monetary resources. Budget restraints and cutbacks are a reality in today's society. A sensitive public debate thus arises which focuses on who should get what social assistance. Should the money be spent on seniors' health care or children's education? When seniors are actively involved in the school, they have an increased awareness and appreciation of the need for and use of funds within the school. Conversely, young people may have more sensitivity to and understanding of seniors and their needs. As a result of the interaction generated by intergenerational programs, both children and seniors may be more willing to share rather than compete for resources.

Erikson (1963) has suggested that for seniors, engagement and interaction with others is important. To reach the mature stage of development which he calls the period of generativity, adults need to experience opportunities to guide the next generation. In the last stage of development discussed by Erikson, seniors must resolve a struggle between a sense of ego integrity and a sense of despair. Through examining and evaluating their life, seniors validate the meaning of their existence.

Intergenerational programs can provide seniors with meaningful opportunities to reminisce and review their lives, become involved in the school and the community and thus inspire generativity and ego integrity. Seniors therefore have a sense of responsibility in caring for children and feel productive and worthwhile as members of society when they do.

Society is constantly changing. People and institutions such as schools continually try to adapt to meet their needs. The traditional, extended family structure that existed at the turn of the century has changed dramatically. This structure, that once provided support for family members, has been replaced by the single parent or nuclear family system. Grandparents no longer live under the same roof or in close proximity. The reality of today's society may find these same grandparents living hundreds of kilometres away in a different city. Contact may be limited to telephone conversations, letters and yearly visits. Children and seniors may not interact regularly or at all.

For healthy psychological growth, children need a diverse set of relationships spanning generations and diverse age groups. This provides a nurturing environment for development and social growth. This is especially true for at risk children. Older adults can provide a caring, consistent relationship for these children which will

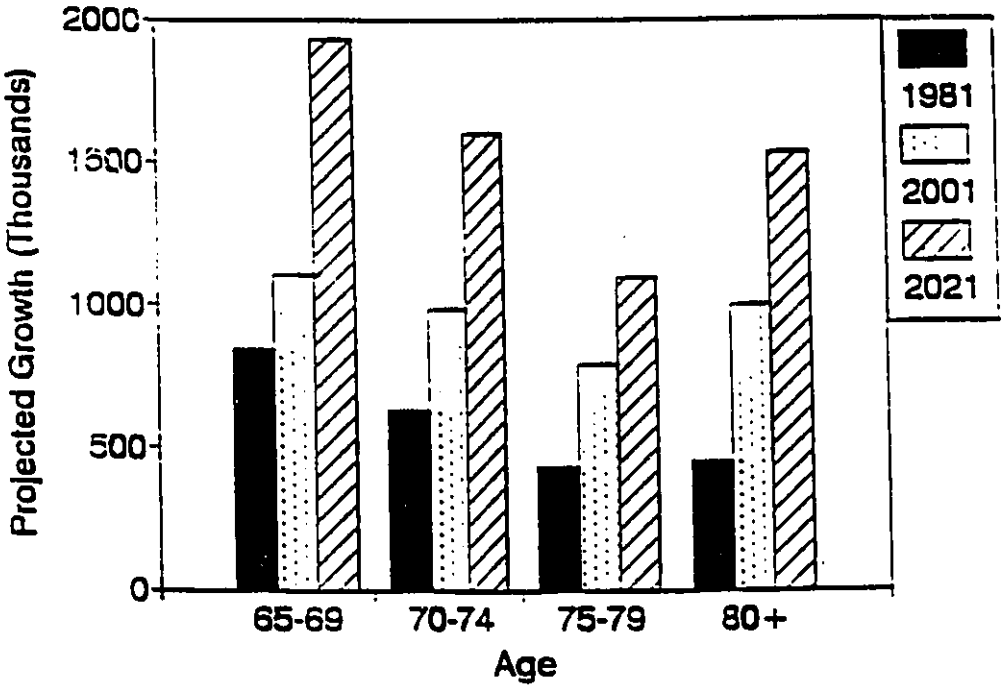
increase their potential for future success.

Institutional systems such as health and education, tend to view intergenerational programs from a narrow perspective. These perspectives may include services such as tutoring or chores, companionship or overcoming stereotypical attitudes towards aging. Intergenerational programs have a much broader impact on society. They contribute to vital social issues such as support for education, health, urban planning, overcoming racial conflicts, and providing equal opportunities for all segments of society.

These programs reach beyond the needs of the young and the old as they strengthen the sense of being part of a global community and therefore contribute to the wellness of society.

Appendix A

Projected Population of Canada - Age 65 and Over (1981-2021)



Source: Marshall, Victor W. (1987). Aging in Canada, (2nd ed.) pp. 24.

Appendix B

Curriculum Test

1. What township is our school located in?

_____

2. What highway takes us from A_____ to W_____?

_____

3. Name two characteristics of a one-room school?

_____

4. How did children get to school?

_____

5. Describe 2 popular pastimes of settler children?

_____

6. What kind of social activities did people do? Name 2.

_____

7. Why was a gristmill important especially to our area?

_____

8. Name 2 hardships of settler life.

_____

9. What was expected from children and teenagers 50-100 years ago?

_____

Appendix C

Tally Sheet

Senior_____

Tape_____

Time										
Disruptive										
Needs Attention										
Inattentive										
Distracted										

Teacher_____

Tape_____

Time										
Disruptive										
Needs Attention										
Inattentive										
Distracted										

Source: BDRS (1989) modified

Appendix D

Teachers' Attitudes Questionnaire

We would like to ask you about your experience in the school.

26. My attitude towards aging has changed.

Strongly agree 1 2 3 4 5 6 Strongly disagree

27. I believe that the community should be more involved in school activities as a result of this program.

Strongly agree 1 2 3 4 5 6 Strongly disagree

28. Seniors have valuable skills and knowledge that can be shared with children.

Strongly agree 1 2 3 4 5 6 Strongly disagree

29. I believe that seniors are a valuable learning resource for children in schools.

Strongly agree 1 2 3 4 5 6 Strongly disagree

30. I believe that this intergenerational program has enriched my teaching strategies.

Strongly agree 1 2 3 4 5 6 Strongly disagree

31. How has your attitude changed as a result of this experience?

_____

32. In your opinion, what was the single best part of this experience?

_____

33. What would you like to see changed in the program?

_____

34. Would you ask seniors to volunteer in the school again?

_____ yes

_____ no

If so, how would you involve them?

_____

35. In your opinion would the school setting (rural or urban) have an impact on the success of an intergenerational program? _____ yes
_____ no

Please explain: _____

36. Do you have any other comments or suggestion?

_____

Thank you for completing this questionnaire.

Appendix E

Results of the Teachers' Attitudes Questionnaire

We would like to ask you about your experience in the school.

26. My attitude towards aging has changed.

Agree 1	2	3	4	5	6 Disagree
	16.7%	33.3%	33.3%	16.7%	

27. I believe that the community should be more involved in school activities as a result of this program.

Agree 1	2	3	4	5	6 Disagree
33.3%	50.0%	16.7%			

28. Seniors have valuable skills and knowledge that can be shared with children.

Agree 1	2	3	4	5	6 Disagree
66.7%	33.3%				

29. I believe that seniors are a valuable learning resource for children in schools.

Agree 1	2	3	4	5	6 Disagree
83.3%	16.7%				

30. I believe that this intergenerational program has enriched my teaching strategies.

Agree 1	2	3	4	5	6 Disagree
33.3%	33.3%	33.3%			

34. Would you ask seniors to volunteer in the school again?

100.0% yes

35. In your opinion would the school setting (rural or urban) have an impact on the success of an intergenerational program? 33.3% yes 66.7% no

Appendix F

Parents' Letter

Dear Parents:

During the months of April and May, Mary Feniak and I would like to have your child take part in a local history project involving volunteer seniors from the community. Seniors will be invited into the school to talk about and take part in activities related to the olden days.

This thesis project is being directed through the Faculty of Education, University of Windsor as part of our Master of Education degree.

As well as finding out about local history we would like to study teachers', seniors' and children's attitudes towards older people. This would involve asking children a series of questions about older people. Sessions with seniors will be video taped. All information provided will be converted to numbers such that children and the school will not be identified. This will maintain confidentiality of all participants.

We request your permission to have your son/daughter take part in this project involving seniors. Participants may withdraw at any time during the project or refrain from answering any questions. If you have any questions regarding the project please feel free to contact me at the school. Your cooperation is greatly appreciated.

We would ask you not to discuss the project with your child as this might affect the results of the study.

Yours truly,

Judy McLaughlin
Vice-Principal
Central School

Mary Feniak
Public Health Nurse
Health Unit

Intergenerational Program Consent Form for Parents

I give my consent for my son/daughter to take part in this intergenerational project during April and May, 1992.

_____

Student's Name

_____

Parent's Signature

If you would like a copy of the results of this project, please sign the attached form.

NAME: _____

ADDRESS: _____

POSTAL CODE: _____ TELEPHONE: _____

Appendix G

Teachers' Letter

Dear

During the months of April and May, a research study will be conducted at Central School. This project will involve inviting seniors into the school to be part of a curriculum unit dealing with local history. The target group for this study will be junior division students. The focus of this study will be based on an intergenerational program.

We are respectfully asking you to help gather information for this study. We will be examining the attitudes of seniors, children and teachers towards aging. We will also be looking at attitudes of seniors and teachers towards intergenerational programs in the schools. The findings of this study may be used as the basis for expanding such programs.

All data will be collected by either Mary Feniak, the seniors coordinator at the Health Unit or Judy McLaughlin, vice-principal at the Central School.

The participants and the school will not be identified. This will maintain confidentiality of all participants. You may withdraw from the study at any time or refrain from answering any questions.

We are asking you to complete a questionnaire which contains three sections. These sections include: true/false statements about seniors and aging, demographic information, questions regarding your opinion about the program. Your honest opinion will be most helpful in this study.

If you have any questions please contact Mary at the health unit or Judy at the Central School.

We appreciate your assistance in participating in this project.

Sincerely,

Judy McLaughlin Mary Feniak

Consent Form for Teachers

I agree to participate in this intergenerational study.

_____

If you want a copy of the results of this intergenerational study please sign below:

NAME: _____

ADDRESS: _____

POSTAL CODE: _____

TELEPHONE: _____

Appendix H

Seniors' Letter

Dear Senior;

During the months of April and May, we would like you to participate in a project on local history in our school. You would be working with children in Grades 4, 5, and 6.

This project will look at the involvement of seniors and their affect on children's learning. We will also look at the attitudes of children, seniors and teachers towards aging as well as the advantages/disadvantages of an intergenerational program.

The participants and school will not be identified at any time. This will ensure confidentiality for everyone who takes part in the project. You may withdraw at any time or refrain from answering any questions.

We appreciate your assistance and support in this project and are looking forward to working with you. If you have any questions, please contact Mary Feniak at the Health Unit or Judy McLaughlin at the Central School.

Sincerely,

Mary Feniak
Judy McLaughlin

CONSENT FORM FOR SENIORS

I agree to participate in this intergenerational study.

_____

If you want a copy of the results of this intergenerational study please sign below:

NAME: _____

ADDRESS: _____

POSTAL CODE: _____

TELEPHONE: _____

Appendix I

Comparison of Student Achievement Level Between Control and Experimental Groups

Students	Control	Experimental	Total
A Level	27	17	44
	61.4%	38.6%	51.2%
	65.9%	37.8%	
B Level	14	28	42
	33.3%	66.7%	48.8%
	34.1%	62.2%	
Total	41	45	86
	47.7%	52.3%	

$p < .05$

Appendix J

Sample Size of Snapshots with Seniors and with Teachers

Sample size	Senior	Teacher	Total
11	0	19	19
	0.0%	100.0%	9.5%
	0.0%	19.0%	
12	0	20	20
	0.0%	100.0%	10.0%
	0.0%	20.0%	
14	10	20	30
	33.3%	66.7%	15.0%
	10.0%	20.0%	
16	30	41	71
	42.3%	57.7%	35.5%
	30.0%	41.0%	
18	10	0	10
	100.0%	0.0%	5.0%
	10.0%	0.0%	
20	10	0	10
	100.0%	0.0%	5.0%
	10.0%	0.0%	
21	20	0	20
	100.0%	0.0%	10.0%
	20.0%	0.0%	
24	20	0	20
	100.0%	0.0%	10.0%
	20.0%	0.0%	
Total	100	100	200
	50.0%	50.0%	

Appendix K

Incidents of Disruptive Behaviour with Seniors and with Teachers

Disruptions	Senior	Teacher	Total
0	62	11	73
	62.0%	11.0%	
1	20	8	28
	71.4%	28.6%	14.0%
	20.0%	8.0%	
2	11	24	35
	31.4%	68.6%	17.5%
	11.0%	24.0%	
3	6	23	29
	20.7%	79.3%	14.5%
	6.0%	23.0%	
4	0	16	16
	0.0%	100.0%	8.0%
	0.0%	16.0%	
5	1	7	8
	12.5%	87.5%	4.0%
	1.0%	7.0%	
6	0	9	9
	0.0%	100.0%	4.5%
	0.0%	9.0%	
7	0	1	1
	0.0%	100.0%	0.5%
	0.0%	1.0%	
8	0	1	1
	0.0%	100.0%	0.5%
	0.0%	1.0%	
Total	100	100	200
	50.0%	50.0%	

Appendix L

Incidents of Inattentive Behaviour with Seniors and with Teachers

Inattention	Senior	Teacher	Total
0	31	73	104
	29.8%	70.2%	52.0%
	31.0%	73.0%	
1	42	21	63
	66.7%	33.3%	31.5%
	42.0%	21.0%	
2	20	5	25
	80.0%	20.0%	12.5%
	20.0%	5.0%	
3	5	1	6
	83.3%	16.7%	3.0%
	5.0%	1.0%	
4	2	0	2
	100.0%	0.0%	1.0%
	2.0%	0.0%	
Total	100	100	200
	50.0%	50.0%	

Appendix M

Incidents of Needing Attention with Seniors and with Teachers

Attention	Senior	Teacher	Total
0	97	52	149
	65.1%	34.9%	74.5%
	97.0%	52.0%	
1	2	17	19
	10.5%	89.5%	9.5%
	2.0%	17.0%	
2	1	18	19
	5.3%	94.7%	9.5%
	1.0%	18.0%	
3	0	9	9
	0.0%	100.0%	4.5%
	0.0%	9.0%	
4	0	1	1
	0.0%	100.0%	0.5%
	0.0%	1.0%	
5	0	1	1
	0.0%	100.0%	0.5%
	0.0%	1.0%	
6	0	2	2
	0.0%	100.0%	1.0%
	0.0%	2.0%	
Total	100	100	200
	50.0%	50.0%	

Appendix N

Incidents of Distraction with Seniors and with Teachers

Distraction	Senior	Teacher	Total
0	16	14	30
	53.3%	46.7%	15.0%
	16.0%	14.0%	
1	32	27	59
	54.2%	45.8%	29.5%
	32.0%	27.0%	
2	22	27	49
	44.9%	55.1%	24.5%
	22.0%	27.0%	
3	17	19	36
	47.2%	52.8%	18.0%
	17.0%	19.0%	
4	8	8	16
	50.0%	50.0%	8.0%
	8.0%	8.0%	
5	3	3	6
	50.0%	50.0%	3.0%
	3.0%	3.0%	
6	2	2	4
	50.0%	50.0%	2.0%
	2.0%	2.0%	
Total	100	100	200
	50.0%	50.0%	

REFERENCES

Allred, G.D., & Dobson, J.E. (1987). Remotivation group interaction: Increasing children's contact with the elderly. Elementary School Guidance & Counselling, 21(3), 216-220.

Ansello, E. F. (1978). Ageism: The subtle stereotype. Childhood Education, 54(3), 118-123.

Angelis, J. (1990). Bringing old and young together. Vocational Educational Journal, 65(1), 19-21.

Babbie, E. (1986). The practice of social research. Belmont, California: Wadsworth Publishing Co.

Baggett, S. (1981). Attitudinal consequences of older adult volunteers in the public school setting. Educational Gerontology, 7(1), 21-30.

Ballantine, J.H. (1989). The sociology of education. Englewood Cliffs, New Jersey: Prentice Hall.

Bennett, R. (1976). In Peacock, E. W., Talley, W. M. (1984). Intergenerational contact: A way to counteract ageism. Educational Gerontology, 10, 13-24.

Bergman, S., & Cybulski, O. (1980). Schoolchildren's attitudes toward learning from older people: A case study in Israel. Educational Gerontology, 5, 259-272.

Blake, G.F. (1986). Project main: Classwork in the community benefits senior citizens. Children Today, 15(4), 31-34.

Boyer, E. (1989). What teachers say about children in America. Educational Leadership, 73-75.

Bradburn, N. M. (1969). Intergenerational program research to refine theory and practice. In S. Newman and S. W. Brummel (Eds.) (1989). Intergenerational programs: Imperatives, strategies, impacts, trends (pp. 217-230). New York: Haworth.

Bullock, L.M., & Others. (1988). A re-examination of the behavioral categories of seven behaviour rating instruments: A conceptual analysis. A final research report. (ERIC Document Reproduction Service No. ED 302980).

Butler, R. N., & Lewis, M.I. (1973). Aging and mental health: Positive psychological approaches. Saint Louis: C. V. Mosby.

Carney, J.M., Dobson, J.E., & Dobson R.L. (1987). Using senior citizen volunteers in the schools. Journal of Humanistic Education and Development, 25(3), 136-143.

Celio, M.B. (1977). The development of a measure of attitudes toward age. (ERIC Document Reproduction Service No. ED 157946).

Cohon, D. (1989). Intergenerational program research to refine theory and practice. In S. Newman and S. W. Brummel (Eds.) (1989). Intergenerational programs: Imperatives, strategies, impacts, trends (pp. 217-230). New York: Haworth.

Corbin, D.E., Kagan, D.M., & Metal-Corbin, J. (1987). Content analysis of an intergenerational unit on aging in a sixth-grade classroom. Educational Gerontology, 13(5), 403-410.

Davis, R.H., & Westbrook, G.J. (1981). Intergenerational dialogues: A tested educational program for children. Educational Gerontology, 7(4), 383-396.

Day, A. M., & Peters, R. DeV. (1989). Assessment of attentional difficulties in underachieving children. Journal of Educational Research, 82(6), 356-361.

Dellmann-Jenkins, M., Lambert, D., Fruit, D., & Dinero, T. (1986). Old and young together: Effect of an educational program on preschoolers' attitudes toward older people. Childhood Education, 62(3), 206-212.

Disch, R., & Moody, H. R. (1989). Intergenerational programming in public policy. In S. Newman and S. W. Brummel (Eds.) (1989). Intergenerational programs: Imperatives, strategies, impacts, trends (pp. 101-110). New York: Haworth.

Doyle, J.R. (1976). Digging for human treasure. Educational Leadership. 34(1), 24-30.

Erikson, E. (1963). Childhood and society (2nd ed.). New York: Norton.

Freedman, M. (1989). Fostering intergenerational relationships for at-risk youth. Children Today, 18(2), 10-15.

Friedman, B.M. (1988). Intergenerational celebrations. Educational Leadership, 45(8), 52-55.

Golde, P., & Kogan, N. (1959). A sentence completion procedure for assessing attitudes toward old people. Journal of Gerontology, 14(3), 355-360.

Greenwood, C. R., Walker, H.M., & Hops, H. (1977). Issues in social interaction/withdrawal assessment. Exceptional Children, 43, 490-499.

Gresham, F.M. (1981). Assessment of children's social skills. Journal of School Psychology, 19(2), 120-133.

Gutman, G. M. (Ed.) (1981). Canada's changing structure: Implications for the future. Burnaby, B.C.: SFU Publications.

Harper, M. (1990). The greying of America. Vocational Education Journal, 65(1), 14-16.

Havighurst, R. J., Neugarten, B. L., & Tobin, S. (1973). Disengagement and patterns of aging. In B. L. Neugarten (Ed.). Middle age and aging. Chicago: University of Chicago Press.

Havighurst, R. J., Neugarten, B. L., & Tobin, S. (1961). The measurement of life satisfaction. Journal of Gerontology, 16(2), 134-143.

Hickey, T., & Hickey, L. A., & Kalish, R. A. (1968). Children's perceptions of the elderly. The Journal of Genetic Psychology, 112, 227-235.

Hoge, R.D. (1985). The validity of direct observation measures of pupil classroom behaviour. Review of Educational Research, 55(4), 469-483.

Hoge, D.H., & McKay, V. (1986). Criterion related validity data for the child behaviour checklist-teacher's report form. The Journal of School Psychology, 25, 387-393.

Hightower, A.D., Work, W.C., Cowen, E.L., Lotyczewski, B.S., Spinell, A.P., Guare, J.C., & Rohrbeck, C.A. (1986). The teacher-child rating scale: A brief objective measure of elementary children's school problem behaviours and competencies. School Psychology Review, 15(3), 393-409.

Hunsucker, P.F., Nelson, R.O., & Clark, R.P. (1986). Standardization and evaluation of the classroom adaptive behaviour checklist for school use. Exceptional Children, 53(1), 69-76.

Jantz, R. K. and Others. (1976). The CATE: Children's attitudes toward the elderly: Test manual. Washington D.C.: American Association of Retired Persons; National Retired Teachers Association.

Jantz, R., Seefeldt, C., Galpner, A., & Serock, K. (1977). Children's attitudes toward the elderly. Social Education, 41(6), 524-527.

Kreger, L.R., & Kreger, R.D. (1985). A developmental look at acting-out behaviour patterns. Pointer, 30(1), 20-24.

Levin, J., & Levin, W. C. (1980). Ageism: Prejudice and discrimination against the elderly. Belmont, California: Wadsworth.

Lubomudrov, S. (1987). Congressional perceptions of the elderly: The use of stereotypes in the legislative process. The Gerontologist, 27(1), 77-81.

Mannheim, K. & Stewart, W.A. (1962). An introduction to the sociology of education. London: Routledge & Kegan.

Marks, R., Newman, S., & Onawola, R. (1985). Latency-aged children's view of aging. Educational Gerontology, 11(1), 89-99.

Marshall, V. W. (1987). Aging in Canada (2nd ed.). Markham, Ontario: Fitzhenry & Whiteside.

McConaughy, S.H. (1985). Using the child behaviour checklist and related instruments in school-based assessment of children. School Psychology Review, 14(4), 479-494.

McPherson, B. D. (1990). Aging as a social process. (2nd ed.). Toronto: Butterworths.

Merrell, K.W. (1989). Concurrent relationships between two behavioral rating scales for teachers: An examination of self-control,social competence, and school behavioral adjustment. Psychology in the Schools, 26(3), 267-271.

Murphey, M., Myers, J., & Drennan, P. (1982). Attitudes of children toward older persons: What are they, what can they be. The School Counsellor, 29(3), 281-287.

Mersereau, Y., & Glover, M. (1990). Surrounded by angels. Language Arts, 67(4), 354-361.

Neeper, R., & Lahey, B.B. (1984). Identification of two dimensions of cognitive deficits through the factor analysis of teacher ratings. School Psychology Review, 13(4), 485-490.

Neuhaus, R. H., & Neuhaus, R. H. (1982). Successful aging. New York: John Wiley & Sons.

Newman, S. (1982). The impact of intergenerational programs on children's growth and on older persons' life satisfaction. (ERIC Document Reproduction Service No. ED 226851).

Newman, S., & Brummel, S. W. (Eds.). (1989). Intergenerational programs: Imperatives, strategies, impacts, trends. New York: Hawthorne Press.

Novak, M. (1988). Aging and society: A Canadian perspective. Scarborough, Ontario: Nelson

Office for Senior Citizens Affairs, (1988). Young and old together. Toronto: Queens Printer.

Olejnik, A.B., & LaRue, A.A. (1981). Changes in adolescents' perceptions of the aged: The effects of intergenerational contact. Educational Gerontology, 6(5), 339-351.

Ontario Gerontological Association. (1988). Fact book on aging in Ontario. Toronto: Queens Printer.

Page, S., Olivas, R., Driver, J., & Driver, R. (1981). Children's attitudes toward the elder and aging. Educational Gerontology, 7(1), 43-47.

Palmore, E., (1980). The facts on aging quiz: A review of findings. The Gerontologist, 20(6), 669-672.

Peacock, E. W., & Talley, W. M. (1984). Intergenerational contact: A way to counteract ageism. Educational Gerontology, 10, 13-24.

Phinney, J.S. (1982). Observing children: Ideas for teachers. Young Children, 37(5), 16-24.

Piaget, J., & Inhelder, B. (1969). The psychology of the child. New York: Basic Books.

Pratt, F. (1981). What's it all about. (ERIC Document Reproduction Service No. ED 211405).

Pribble, D.A., & Trusty, K. (1981). Gerontology and social studies education: Learning activities for eliminating negative stereotypes. Educational Gerontology, 6(2), 181-190.

Reep, B., & Early, P. (1988). This program narrows the distance between young and old. The Executive Educator, 10(12), 17,26.

Remer, P., & Schrader, L.A. (1982). Facilitating a positive awareness of aging. The School Counsellor, 29(4), 297-307.

Roche, B.J. (1985). Celebration of growing older: A community wide program on elder issues. (ERIC Document Reproduction Service No.ED277430).

Rosenburg, M. (1965). Intergenerational program research to refine theory and practice. In S. Newman and S. W. Brummel (Eds.), Intergenerational programs: Imperatives, strategies, impacts, trends (pp. 217-230). New York: Haworth.

Schonfield, D. (1982). Who is stereotyping whom and why? The Gerontologist, 22(3), 267-272.

Seefeldt, C. (1987). Intergenerational programs: Making them work. Childhood Education, 64(1), 14-18.

Seefeldt, C., Bredekamp, S., Jantz, R.K., & Serock, K. (1982). How older people view children. Children Today, 11(2), 16-20.

Schreter, C., (1991). Older volunteers. The American School Board Journal, 178(2), 35-36.

Shipman, M. (1985). The public school and our aging society. Education Canada, 25(3), 30-35.

Silvern, S. (1986). Old and young together: Effect of an intergenerational program on preschoolers' attitudes toward older people. Childhood Education, 62(3), 206-212.

Southall, G.A. (1984). Gray hairs in the chalk dust:The place of senior adults in our schools. Education Canada, 24(3), 24-27.

Talley, W.M. (1984). Intergenerational contact: A way to counteract ageism. Educational Gerontology, 10, 13-24.

Tice, C.H. (1985). Perspectives on intergenerational initiatives: Past, present and future. Children Today, 14(5), 6-11.

Wilson, M.J., & Bullock, M.J. (1989). Psychometric characteristics of behaviour rating scales: Definitions, problems, and solutions. Behavioural Disorders, 14(3), 186-198).

Wilson, M.J., Moore, A.D., & Bullock, L.M. (1987). Factorial Invariance of the behaviour dimensions rating scale. Measurement and Evaluation in Counselling and Development, 20(1), 11-1.

VITA AUCTORIS

Judith Dianne McLaughlin was born in London, Ontario on November 5, 1948. She graduated from G. A. Wheable Secondary School in 1967. She continued her post secondary education at the University of Western Ontario and graduated with a Bachelor of Arts degree in 1970. She graduated from London Teacher's College in 1971 and was employed by the London Board of Education from 1971-1972.

In 1974, she was hired by the Lambton County Board of Education and worked for twelve years as a classroom teacher. From 1986 to 1991, she worked as Junior Consultant. As consultant, she had an opportunity to work on a number of different committees as well as be involved in the area of curriculum development and implementation. During this period, she also received her Honours Bachelor of Arts degree as well as a specialist certificate in Guidance and Visual Arts.

In 1991, she was appointed vice principal in Lambton County after completing both parts of the principals' courses through the Educational Leadership Center at Althouse College. These past experiences have made her very much aware of the need for community involvement and support in the schools.