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ABSTRACT

This proceedings contains 19 papers presented at the second annual faculty conference at the University of Victoria (British Columbia, Canada). Papers cover a wide variety of disciplines, including preschool education, classroom communication, mathematics instruction, theater, attention deficit disorders, distance learning by rural home schoolers, physical education, writing in English as a second language classes, reading comprehension, art education, preservice teacher education, social studies, music education, counseling, action research by teacher-researchers, and teacher anger. The papers are: "Sensory Experience: A Means of Enhancing Playfulness and Creativity for Preschool Children" (Wanda A. R. Boyer); "Reading Your Readers: The Observation of Ability and Control through Students' Nonverbal Communication" (Mary Dayton-Sakari); "Mathematics Teaching and Learning: Striving To Accommodate Changes in Emphasis-Spatial Sense" (Werner W. Liedtke); "Using Theatre To Explore Social Issues" (Carole Miller); "Attention Deficit Hyperactivity Disorder: A Brief Review of Issues" (Jim Ward); "Past Achievements, Present Objectives, and Future Directions of Electronic Home Learning Programmes in British Columbia" (Kathie M. Black); "Precontemplating P.E.?" (Joan Wharf Higgins, Pattie-Jean Naylor, Tara Ney); "A Comparison of Cross-Linguistic Genre Preferences" (Robert J. Anthony, Hitomi Harama); "A Study on Reading Comprehension Processes in Chinese and English: Interdependent or Universal" (Hua Tang); "Visual Persuasion: The Power of Advertising Art" (Bill Zuk, Bob Dalton); "Constructing Continuity, Exploring Possibility, Celebrating Ambiguity: The Evolution of Our Collaborative Practice with Pre-service Teachers in Social Studies and Language Arts" (Vicki A. Green, Nancy L. Evans); "Sight-Singing Revisited: An Ethnographic Account of a Musicianship Methods Class" (Moira Szabo); "Memories of Music in Elementary School: A Study in Sonata Form" (Inez St. Dennis); "A Study of the Cohort Group Model of Delivering Pre-service Teacher Education: The First Year Results" (Lily Dyson, Betty Hanley, Carole Miller); "The Collaborative Process of Reflection on Counsellor Development: A Case Study for Research and Practice" (Anne Marshall, Trace Andersen); "Gender

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Equity in Physical Education Workshop for Teachers: The Process of Change" (Sandra Gibbons, Geraldine Van Gyn); "Educators as Action Researchers: Discourse and Reflections" (Lily Dyson, Leola Gibson, Colin Roberts); "Reflexivity and the Researcher's Role" (Elizabeth M. Banister); and "'The Anger in Our Miss Maple': Narrative Exploration of Difficulty in Teaching" (Leah C. Fowler). (Contains references in most papers.) (SV)

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UNIVERSITY OF VICTORIA



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Edited by
Mary Dayton-Sakari
Carole S. Miller
Werner Liedtke



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Developing the Dialogue Connections '96

In May 1996 the Faculty held its second annual *Connections* Conference. This event grew out of initial discussions during a faculty retreat. The intent determined at that gathering was to get to know a little more about one another's interest and projects and to get to know each other better. The resulting structure would enable all participants to be a part of all presentations in order to encourage interconnections and interactions between departments and among individuals. This year the diverse backgrounds from different disciplines are again well represented. *Connections'96* is the second monograph in a series presented by the Faculty of Education, University of Victoria. This volume articulates and reiterates our diversity while demonstrating existing connections.

Different areas of interest of the faculty are acknowledged through presentations and participation. The variety of submissions illustrate the holistic nature of the Faculty. Both preservice and inservice education are viewed through psychology, fine arts, language arts, mathematics, science, social studies, and curriculum. This volume stands as a representation of the existing relationships, linkages, and diversity manifested at the Conference. The nineteen papers included represent interests in school based research; learners at all levels, and professional educators. The content of the articles provide the reader with a broad lens through which education can be examined.

The prevalent focus of the contributions by different authors do reflect the importance of our connections to the child's life in a classroom from preschool education to secondary students and beyond. Wanda Boyer's research involves the preschool child and the development of playfulness within the learning environment. Mary Dayton-Sakari examines the emerging reader and qualities of a successful reader while Werner Liedtke's work is focused in the area of early mathematical understandings related to spatial sense. Carole Miller documents the role of theatre-in-education to enhance school based personal safety programs. Jim Ward explores the concept of Attention Deficit Hyperactivity Disorder and its ramifications in the classroom while Kathie Black takes us out of the traditional classroom and examines the role of technology in home based learning.

Other authors focus their work on older learners. Joan Wharf-Higgins enhances our awareness of the need for effective physical education programs for adolescents. Robert Anthony investigates the relationship between report writing performance, developmental stage, and instructional context while Hual Tang examines the relationships between first and second language comprehension strategies in reading. Bill Zuk and Robert Dalton report a critical analysis of advertising images and texts as they can affect the learners of today.

The role of preservice education is also explored. This theme is exemplified by Vicki Green and Nancy Evans in their work using cross-discipline collaborative assignments as well as in two papers addressing preservice music education. Moira Szabo researches a musicianship methods class while Inez St. Dennis uses students' reflective writing to examine fears related to the teaching of music. Lily Dyson, Betty Hanley, and Carole Miller outline the effect of a cohort model of preservice education. Anne Marshall and Trace Anderson describe the second stage of a project related to counselor identity.

Inservice education and professional development are also examined. Sandy Gibbons details a gender equity workshop for physical education teachers and Lily Dyson recounts her work with a local teachers' action research group. Elizabeth Bannister makes a strong case for researcher as instrument through her work with mid-life women. Finally, Leah Fowler exemplifies the role of the storyteller through her exploration of the nature and difficulty of teaching through narrative.

As was the case for *Connections '95*, the major purpose of *Connections '96* and the resulting publications lies in promoting communication within the education and related research communities. We believe that this continued communication can not only enhance the quality of our discourse but can also have a positive impact on future research activities.

Mary Dayton-Sakari, Carole Miller, and Werner Liedtke
March 1997

Sensory Experience: A Means of Enhancing Playfulness and Creativity for Preschool Children

W.A.R. Boyer

This paper reviews the literature surrounding playfulness and creativity and describes a research study based on the enhancement of playfulness through sensorial exploration with 3, 4, and 5 year old participants. Multiple linear regression and several demographic variables are used to analyze the results.

The Purpose of the Study

The purpose of this study was to determine whether deliberate and playful sensorial stimulation intervention experiences could be considered to have a significant positive impact on the playfulness of young children. Six formal research hypotheses were based on the six playfulness ratings of the Children's Playfulness Scale (Barnett, 1990): physical, social/emotional, cognitive, manifest joy, sense of humour, and total playfulness rating. The demographic variables which were held constant statistically, included age, gender, socioeconomic status, birth order, and number of siblings. These variables were isolated since they have been identified in other studies of playfulness in young children (Barnett, 1990; Barnett and Kleiber, 1982; Barnett and Kleiber, 1984; Lieberman, 1965). The hypotheses were: While holding constant the demographic variables, intervention will have a positive impact on the subjects with respect to ratings related to:

1. Total playfulness
2. Physical playfulness
3. Social/emotional playfulness
4. Cognitive playfulness
5. Manifest joy playfulness
6. Humour playfulness

Review of the Literature

According to Athey (1984), Barnett (1990), Cattell (1979) and Singer and Rummo (1973), imaginativeness, humour, emotional expressiveness, novelty seeking, curiosity, openness, communicativeness, flexibility, and persistence are all attributes related to playfulness behaviours. These playful behaviours afford each individual child the opportunity to freely explore and "try on" personality dimensions and personas, discover alternative strategies for handling daily concerns, and sample the world through his/her senses (Fineman, 1962; Freyberg, 1973; Singer, 1973; Singer & Singer, 1976).

Schafer (1969) found that creative differences in the problem-solving skills of high school students could be traced back to make-believe and playful experiences in earlier childhood. Furthermore, authors such as Meichenbaum (1971) and Spivak and Levine (1964) have posited that limited fantasy play and playfulness in early childhood could result in the later development of problems with impulsivity, antisocial behaviour, and susceptibility to delinquency.

According to Beatty (1990), imaginative and playful behaviours rely heavily on the creative skills that the young child possesses. Barnett (1990) further asserts that these playful behaviours might be governed predominantly by individual variability and personality. This assertion leads one to question: Does Barnett's premise preclude deliberate intervention to assist the child who does not naturally manifest playful behaviours? Furthermore, if intervention can have an impact, what type of intervention will be effective in developing playfulness in young children?

According to Valett (1983), the developmental progression of playfulness in young children is an integrated process composed of sensory impressions acquired over time and as a result of experience and education. Within the young child's mind, dynamic entities such as images and novel ideas are activated by personal receptiveness, volition, and action. The development of imaginative play behaviours is influenced by training and experience and can best be described by five stages: sensory exploration, egocentric speculation, personal experimentation, symbolic representation, and functional verification.

Sensory exploration is a playful stage in which a child flexibly and enthusiastically encounters the environment. This stage begins shortly after birth and continues through the preschool years. Egocentric speculation is dominated by fantasy and the exaggeration of intuitive impressions. Children are enthralled by the possibility of their magical powers. Dolls, toy animals, and imaginary friends are imbued with life special qualities. Personal experimentation during the early school

years results in a systematic guess-and-test approach to the world. Visual and auditory images are "put to the test" experimentally. *Symbolic representation* is the stage reached by late childhood. It is characterized by the representation of imaginative experiences in symbolic forms such as drawings, formulae, words, dance, paintings, and sculpture. *Functional verification* is marked by the emergence of inventive, productive and applied behaviours resulting from accumulated experience and the wisdom to create new changes in the self and the environment.

The intervention program that was developed as part of this research project is based on sensorial stimulation of playful behaviours. The rationale for employing this type of intervention is based on Valett's model (1983), which asserts that preschool children are at the sensory exploration stage.

Method

Participants

The sample included 105 pupils from eight classes in three parent-cooperative preschools within a mid-sized city in southwestern Canada. Each preschool class consisted of one certified preschool teacher, one or two parent assistants, and eight to sixteen preschool pupils. The four experimental and four control preschool classes were randomly assigned with respect to the variables in the study. Each preschool location contained at least one experimental and one control class. There were fifty-three pupils (thirty-one girls and twenty-two boys) in the experimental group and fifty-two pupils (twenty-nine girls and twenty-three boys) in the control group. There were sixty girls (57.2%) and forty-five boys (42.8%) in the sample. The average age difference between the experimental group and the control group was approximately one month (0.08 years). The demographic information about each child was obtained by the researcher through individual consultation with the three preschool teachers, who provided the relevant information from the preschool's files.

Measures

Playfulness ratings were derived from Barnett's Children's Playfulness Scale (1990). This 23-item Likert-type scale yields a total playfulness rating as well as ratings in the following categories: physical, social/emotional, cognitive, manifest joy, and sense of humor. A total playfulness rating is achieved by summing the scores in each of the five subscales. The rating for a playfulness subscale is calculated by summing the ratings given for each item on the subscale. The ratings for each item are between one and five inclusive. The subscale can be

Barnett (1990) found that in order to evaluate the playfulness scale, and in particular identify scale validity, it must be demonstrated that the scale adequately captures the underlying playfulness factors. Barnett found that the "playfulness factor items are highly correlated with their corresponding regression-based factor scores in each solution, with convergent correlations ranging from .89 to .95, whereas the discriminant correlations are quite low, ranging from -.02 to -.19" (1990, p. 329). Barnett also found that the internal consistency reliabilities were all acceptably high (1990, p. 326). Interestingly, Barnett found that the correlations between the playfulness factors ranged from .63 to .71, and the intercorrelations between the factors and the total playfulness score, which indicate the extent that each factor contributes variance to the child's composite playfulness rating, ranged from 0.72 to 0.79. Finally, Barnett demonstrated item validity via the factorial validity of individual playfulness items. It was found that in the median varimax loadings for the playfulness items on these five factors, all of the items on the playfulness scale have strong primary loadings of .55 or above on the appropriate factor, and the secondary loadings are acceptably low. This indicates that all of the playfulness items are good markers of their corresponding factors.

Procedure

With respect to consideration of the dependent and independent variables, the eight classes were assigned randomly to the experimental and control groups. The only constraint on this assignment, which is mutually exclusive of the variables in this study, was that each preschool location contained at least one class in the experimental group and one class in the control group. The children in the experimental group were exposed to ten intervention lessons, while the children in the control group were not. Immediately after the intervention was completed, all of the children were rated using the Children's Playfulness Scale (Barnett, 1990, 1991).

The playfulness ratings were performed by three research assistants. These student observers were used to help ensure objective evaluation of playfulness. It has been demonstrated that by removing the researcher from this task the Children's Playfulness Scale is reliable and valid whether the rater is a student observer or a teacher (Barnett, 1990, p. 326). The research assistants also underwent twenty-two, hour long sessions on the use of the Children's Playfulness Scale. As part of these sessions, videotaped classroom and playground sequences were used to instruct the research assistants on how to interpret and rate children's playfulness behaviors using the Playfulness Items shown in the Children's Playfulness Scale. The research assistants were initially

unaware of the purpose and hypotheses of the study. Inter-rater reliability was 88% or higher. Furthermore, during the formal observation sessions after the intervention, each evaluator was responsible for rating at least one class from each of the control and experimental groups, which helped to minimize any rating differential. In order to help maintain objectivity within the study, the research assistants were not permitted to perform the playfulness ratings on any experimental groups for which they had conducted the intervention.

This research involved the use of physical senses in order to systematically enhance playfulness in children's learning. The researcher adapted the work of Singer & Singer (1977) whereby in groups of four to five, each child in the experimental group experienced two lessons a week for a five week period. This program was developed to encourage children of all abilities, motivation levels, and aptitudes for learning through the use of their senses.

The ten lessons were written by the researcher particularly for this study. These ten lessons are based upon the exploration of each of the five physical senses (smell, hearing, touch, taste and sight) and were introduced in two 15-20 minute lessons for each sense and conducted at a center in one location of the classroom. The activities were conducted by the three research assistants, who had received twelve hours of additional training by the researcher in order to deliver all ten lessons to the children. Two lessons were conducted per week with four to five students at a time. Before the intervention the parent cooperative teacher/supervisors informed the assistants of any children who had allergies to any or all of the food samples. Children with allergies were included at the center but not required to smell, taste, or touch the food to which they were allergic. The following is a description of the ten lessons.

Lessons #1 and #2 dealt with the sense of smell. In the first activity, the children are presented with a variety of different scents found in their cultural environment and asked to identify them (i.e., cinnamon, cinnamon sticks, dried mustard, garlic cloves, garlic powder, coffee, pepper, tea, perfume, etc.). Children are asked to make analogies (e.g., "What does this smell like?") and link scents with events and people in their lives (e.g., "Where have you smelled this smell before?", "Does this smell remind you of someone or something?"). Finally, children are asked to reflect on their personal enjoyment of the smell, how they felt when they smelled a particular scent, and other smells they may have experienced indoors and out of doors. The second lesson takes children on a fantasy trip to a grocery store with all of its wondrously fragrant scents. Children are given an opportunity to smell both familiar

(e.g., oranges and apples, etc.) and unfamiliar (e.g., spinach) scents. Finally, children are asked, "How do these smells make you feel?"

Lessons #3 and #4 feature the sense of hearing. In the third activity the children become sound sleuths and are asked to close their eyes and listen to a series of sixteen sounds (e.g., telephone ringing, cows mooing, highway sounds, hand saw, birds in a forest, train, toilet, horse whinnying, typewriter, native drum, panting dog, cutting paper, lawn mower, water running in a sink, hammer, whippoorwill). Children are asked to identify the sound, pinpoint where they might have heard this sound before, state their personal preference in sounds and their rationale for liking and disliking certain sounds, and finally to try to replicate these sounds with their mouth, nose, hands, etc. The fourth activity has children to interact with objects in their environment (e.g., an empty jug, two spoons, a comb, a glockenspiel made of spoons) which are not classified as musical instruments but which can produce various sounds. The children are also asked, "Can you make your musical instruments be happy, shy, excited, angry? Can you make your jug laugh? What did it feel like to make your musical instrument produce these sounds? What do you feel like when you are happy, shy, excited, angry? How do you laugh? What instrument do you sound like?"

Lessons #5 and #6 accentuated the sense of touch. These lessons involve having the children unpack a *touch travel bag* containing liquid imagination which they rubbed into their heads, a nose key to turn off the sense of smell, and travel goggles (glasses without the lens) to shield each individual from the sun. The impact of this imaginary preparation is a more intense "traveling of the textures" and a physical and cognitive readying of each child to animatedly experience the sensation of touch. Within this playful milieu, children are asked to investigate how different parts of their bodies (e.g., hand, upper arm, and lip) can tell them what an object is by determining its texture characteristics (e.g., its shape, how hard or soft, how blunt or sharp, how rough or smooth, etc.). The children are asked, "What indoor and outdoor games use your sense of touch? Are there some games where you don't use your sense of touch? If so why?"

Lessons #7 and #8 capitalize on the sense of taste. In the seventh activity, children are asked to become taste testers and revel in a variety of disparate tastes (e.g., brown sugar, salt, chocolate, cocoa, cinnamon, confectioners' sugar, tea, vinegar, lemon juice, dill pickles). In the eighth activity, children explore and attempt to localize their sense of taste to various parts of their tongues. Children are required to identify tastes without the use of their four other physical senses.

Lessons #9 and #10 use the sense of sight to look at the world around more closely. Activity nine has the children think about what they

might see using their sense of sight: laying in the grass and looking up at the sky, sitting in a chair outside on a quiet dark night, and hanging from monkey bars. The investigation of the sense of sight is concluded in lesson ten with the examination of jewelry, noodles, and popcorn through a magnifying glass and cardboard viewer. Children are asked to talk about smoothness, roughness and weight of these objects using the two special tools.

Analysis of the Data

The following is a brief overview of the descriptive data and findings of this research. The scores on the Children's Playfulness Scale can range from 23 to 115. In the experimental group the range was 51 to 110 with a mean of 82.0 and standard deviation of 13.8. In the control group, the range was 42 to 108 with a mean of 73.7 and standard deviation of 16.5. Using the control group mean as the baseline, the experimental group mean was 11.2% higher. Table 1 shows the means and experimental/control group differentials in each of the playfulness categories.

Table 1. Playfulness Rating Means by Playfulness Category

	Control	Experimental	Differential
Total Rating	73.7	82.0	+11.2%
Physical	16.5	16.9	+2.8%
Soc./Emotion	18.1	20.1	+10.8%
Cognitive	12.1	12.5	+2.4%
Manifest Joy	16.2	18.4	+13.0%
Humour	10.7	14.1	+32.3%

Table 2. F-Ration cross reference of regression models and independent variables++.

	E/C	Age	Gender	SES	Birth Order	# of Siblings
Total Rating	8.28*	4.40*	11.7*	0.148	0.061	0.007
Physical	1.79	0.695	28.9*	0.328	0.505	0.049
Soc./Emotion	6.74*	5.55*	1.02	0.118	0.125	0.626
Cognitive	0.275	4.04*	4.50*	2.86	0.095	0.088
Manifest Joy	4.77*	3.10	13.7*	0.016	0.008	0.080
Humour	14.9*	1.90	7.24*	0.005	0.240	0.110

Table 2 provides an F-Ratio cross-reference of the six dependent variables (regression models) versus the independent variables used in each model. As the data in Table 2 illustrate, the intervention (represented by E/C) was found to have a significant effect on the total playfulness ratings. A significant effect was also found in the categories of social/emotional, manifest joy, and sense of humour. With regard to the physical and cognitive playfulness categories, the notably smaller differences in average between the experimental and control groups were found not to be significant. These differences in average between the experimental and control groups were expected since the intervention did not focus on gross-motor physical development and a longitudinal design is required for the study of cognitive development.

Conclusion

The intervention developed by the researcher for this study targeted the social/emotional aspect of playfulness using small group discussions of the children's feelings towards various sensory impressions; playfulness in cognition used the linguistic and scientific techniques described previously; and manifest joy and sense of humour were targeted with humorous language experiences and a joyous celebration of the senses. Although, the intervention required the use of fine motor skills, it did not target the use and development of gross motor skills normally associated with outdoor play (except during guided imagery experiences).

According to the research findings, the intervention was successful at positively influencing several playfulness categories targeted by the intervention design, which led to a significant positive effect on the total playfulness rating. Although further research is warranted, the results suggest that playfulness of young children can be enhanced by an intervention based on sensory stimulation.

Possible future research implied by this study includes, but is not limited to, a longitudinal analysis of this type of intervention on cognitive development and an analysis of playfulness based on gender.

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References

- Athey, I. (1984). Contributions of play to development. In T.D. Yawkey & A.D. Pellegrini (Eds.), *Child's play: Developmental and applied* (pp. 9-28). Hillsdale, NJ: Erlbaum.
- Barnett, L.A. (1990). Playfulness: Definition, design, and measurement. *Play & Culture*, 3, 319-336.
- Barnett, L.A. (1991). The playful child: Measurement of a disposition to play. *Play & Culture*, 4, 51-74.
- Barnett, L. A. & Kleiber, D. A. (1982). Concomitants of playfulness in early childhood: Cognitive abilities and gender. *The Journal of Genetic Psychology*, 141, 115-127.
- Barnett, L. A. & Kleiber, D. A. (1984). Playfulness and the early play environment. *The Journal of Genetic Psychology*, 144, 153-164.
- Beatty, J.J. (1994). *Observing development of the young child*. (3rd ed.). New York: Macmillan.
- Cattell, R.B. (1979). *Personality and learning theory: Vol. 1. The structure of personality in its environment*. New York: Springer.
- Fineman, J. (1962). Observations on the development of imaginative play in early childhood. *Journal of the American Academy of Child Psychiatry*, 1, 167-181.
- Freyberg, J. (1973). Increasing the imaginative play of urban disadvantaged kindergarten children through systematic training. In J.L. Singer (Ed.), *The child's world of make-believe* (pp. 129-154). New York: Academic Press.
- Lieberman, J. N. (1965). Playfulness and divergent thinking: An investigation of their relationship at the kindergarten level. *The Journal of Genetic Psychology*, 107, 219-224.
- Meichenbaum, D.H. (1971). *The nature and modification of impulsive children: Training impulsive children to talk to themselves (Internal Report No. 23)*. Waterloo, ON: University of Waterloo.
- Schafer, C.E. (1969). Imaginary companions and creative adolescents. *Developmental Psychology*, 1, 747-749.
- Singer, D.G., & Rummo, J. (1973). Ideational creativity and behavioral style in kindergarten aged children. *Developmental Psychology*, 8, 154-161.
- Singer, J.L. (1973). *The child's world of make-believe*. New York: Academic Press.
- Singer, J.L., & Singer, D.G. (1976). Imaginative play and pretending in early childhood. In A. Davids (Ed.), *Child personality and psychopathology*. Vol. 3. Wiley.

- Singer, D.G. & Singer, J.L. (1977). *Partners in play. A step-by-step guide to imaginative play in children*. New York: Harper & Row.
- Spivak, G., & Levine, M. (1964). *Self-regulation and acting-out in normal adolescents (Progress Report for National Institute of Mental Health Grant M-4531)*. Devon, PA: Devereaux Foundation.
- Valett, R.E. (1983). *Strategies for developing creative imagination and thinking skills*. (Report No 1 EC 160 059). (ERIC Document Reproduction Service No. ED 233 533)

Appendix A

Playfulness Subscale (Barnett, 1991)

- 1 = Doesn't sound at all like the child
- 2 = Sounds a little like the child
- 3 = Sounds somewhat like the child
- 4 = Sounds a lot like the child
- 5 = Sounds exactly like the child

The items marked with ** below require inverted coding.

Playfulness Subscale

Playfulness Items

Physical Spontaneity

The child's movements are generally well-coordinated during play activities.

The child is physically active during play.

The child prefers to be active rather than quiet in play.

The child runs (skips, hops, jumps) a lot in play.

Social Spontaneity

The child responds easily to others' approaches during play.

The child initiates play with others.

The child plays cooperatively with other children.

The child is willing to share playthings.

The child assumes a leadership role when playing with others.

- Cognitive Spontaneity** The child invents his/her own games to play.
The child uses unconventional objects in play.
The child assumes different character roles in play.
The child stays with one activity rather than changes activities during play. **
- Manifest Joy** The child expresses enjoyment during play.
The child demonstrates exuberance during play.
The child shows enthusiasm during play.
The child is restrained in expressing emotion during play. **
The child sings and talks while playing.
- Sense of Humor** The child enjoys joking with other children.
The child gently teases others while at play.
The child tells funny stories.
The child laughs at humorous stories.
The child likes to clown around in play.

Reading your readers: The observation of ability and control through students' nonverbal communication

Mary Dayton-Sakari

The focus of the paper is to inform professionals of the information available through students' and teachers' nonverbal behavior during literacy interactions. Knowledge of these behaviors is important to students' literacy achievement and to assessment and instruction decisions.

As a supervising instructor watching struggling readers and teacher-tutors in the University of Victoria reading clinic, it became apparent to me that the teachers rather than the children do the physical and mental work of reading. Teachers manipulate the materials, pose the questions, and carry the discussion. Teachers take pencils out of the case, hand materials out, open books, turn pages, erase mistakes, write, read, and talk. Struggling readers, on the other hand, do not do much of anything. They do not read, nor write, nor talk. They do not even touch the materials. They are not involved. The teachers do the work and the struggling readers are simply there.

Dewey (1938) says that we learn by doing. Vygotsky (1972) states that learning is a social interaction and done within a zone of proximal development. Piaget (1950) says we learn when we seek equilibrium through accommodation and assimilation. Clay (1991) suggests that a good reader has inner control over the process of reading. As I watched these struggling readers I saw no inner control, assimilation, interaction, or doing and I began to wonder if, despite all our thought and work, our struggling readers were being helped at all? Were our strategies, activities, and focused one-to-one instruction enough to teach them to read? The answer to that seemed to be, no. Our struggling readers were not involved physically, emotionally, or cognitively. They were not the least bit engaged with any aspect of reading. They did not seem to care, they just endured.

Framework

The more I work with these children the more I realize the importance that emotion plays in their struggle. Unfortunately the emotional (affective) aspects of learning to read are generally ignored by educators and

researchers alike. Could it be because it seems so ephemeral, so difficult to describe or quantify? Certainly affect is not researched to the same extent as cognition, yet affect is an important part of our educational thought. One trend in reading education suggests that teachers should step out of the way and allow children to take control of their own learning (Atwell, 1987; Forester and Reinhard, 1989; Froese, 1990; Goodman, 1985; Hunsberger, 1985; Routman, 1991; and others). Unfortunately what this stepping out of the way is or how to operationalise it is not made clear.

This stepping aside should be a diagnostic reading teacher's goal. To become independent learners, struggling readers must take control over their own reading. Garner suggests that reading is a matter of "...will rather than skill" (1992, p. 248) and Pearson (1992) points out that student-generated questions lead to control over their own reading. This suggests that being or becoming an expert reader means taking control of the experience. Clay (1991) concurs when she states that teachers must allow students to take control of the reading task and that readers by doing so, display what she terms "inner control". Yet while Clay speaks of the necessity for the reader to have inner control, neither she, nor anyone else has formulated a specific description of inner control. After watching struggling readers in the university reading clinic, it is apparent to me that a reader's inner control or lack of it is shown through aspects of a reader's outer control; through their physical, non-verbal, literacy behaviors.

Findings on the effects of affect on literacy acquisition are minimal and scattered throughout research in psychology, education, and nonverbal communication. Psychologists and educators such as Purkey (1970) and Roderick (1977) concentrate on the role of self-concept in a school setting. Quant (1977, 1983) discusses the relationship of self-concept to literacy success. A great deal of research has been conducted into the meaning of nonverbal behaviors. Most studies apply to the general population but very little evidence exists about children in schools. Ekman & Friesen (1969) devised a system categorizing gestures and facial expressions that is particularly useful for working with students (also see Ekman, P. 1993, Levenson, R. W., Ekman, P. & Friesen, W. V. 1990, Rosenberg, E. L. & Ekman, P. 1995 for an extension and discussion of their system). Galloway (1976) observed teachers' nonverbal behaviors in the classroom and labeled them as "encouraging" or "restricting" teaching behaviors. My research yielded results that showed that teachers can distinguish good from poor readers without listening to them read, but by observing their nonverbal gestures and expressions (i, 1983).

Nonverbal behaviors reveal students' ability to read and write. Awareness of those behaviors, once articulated, can be of help to the teacher in distinguishing the presence of readers' inner control. As part of this study an attempt was made to relate readers' physical literacy behaviors, their nonverbal communication, to Clay's inner control by focusing on how readers of differing ability reveal their inner control (or lack of it) through their outer control of reading. The research questions posed were: Do below grade level readers show different types of nonverbal behaviors than above or at grade level readers? and, Do below grade level readers show a different amount of control than above or at grade level readers?

Method

Videotapes of 60 grade one through grade six above, at, and below grade level readers in one-to-one reading interactions with their teacher in their classrooms or with a teacher-tutor in the university reading clinic were prepared (see Table 1).

Table 1 Subjects by Grade and Level

Grade	Above	At	Below
One	5	6	8
Two	5	6	7
Three	3	1	4
Four	1	3	3
Five	0	1	1
Six	3	1	3
Total	16	18	26

The readers were identified by their classroom or learning assistance teacher as: below grade level (struggling readers, children reading at least one grade level below their current assigned grade); at grade level (children reading at their current assigned grade); and above grade level (exceptional readers, children reading at least one grade level above their current assigned grade). Each pair (teacher and reader) was videotaped for two or three sessions of ten minutes each. Five minutes from the middle of the second or the third tape was selected for analysis.

To find an answer to the first question, the videotaped behaviors of each reader were categorized. The categories included facial expression, gesture, and posture descriptions based on Ekman and Friesen (1969), Galloway (1976), and Sakari (1983, 1994). Nonverbal behaviors considered to be showing outer control, were physical evidence of confidence, facility and proficiency or showing no outer control through hesitancy, uncertainty and incompetence. To answer the second question, the amount of time during the five minute segment of tape spent on control was calculated by two observers. Physical evidence of handling the materials was considered as control of the literacy materials and interaction. The interrater reliability between the two observers categorizing the data was calculated to be at a 95% level of agreement. To determine the significance of control, a one-way ANOVA was run on the mean responses of reader, teacher, and shared control. To determine reading ability group differences (if above, at, or below grade level reader means were significantly different) a Tukey HSD multiple comparison was used.

Results

Do below grade level readers show different kinds of nonverbal behaviors than readers above or at grade level?

There existed observable differences in behaviors that above and below grade level readers used to handle reading materials while at grade level readers used some of both kinds. One difference consisted of behaviors that show the interaction between reader, text, and teacher. Above grade level readers interacted with their teachers and the text as they read. They shared the humor, irony or other aspects of the content or structure. They drew their teacher in, making comments about what they were reading or connecting to their own thinking. Below grade level readers were passive. They were bent over the text, sometimes almost touching it with their head. There was little interaction with the text and none with the teacher unless it was teacher initiated. They made no comments on what they were reading or thinking.

Another difference in behavior is how securely or insecurely readers handled the materials. Above grade level readers grasped the book in two hands with the spine balanced on the table or held it up off their lap at a correct eye level. Sometimes they held the book with one hand spreading it at the spine and balancing it against the table. When writing they used one hand to write and the other hand to stabilize the paper. Below grade level readers let the table or teacher do the work. Their hands were not in sight. The book was often askew and not centered in front of them and not at the correct distance from their eyes.

They kept the book open with a thumb at the bottom of the spine or sat on both hands and let the book keep itself open. The book often closed and at times, fell on the floor. When writing only their pencil hand held the paper while the paper squiggled around. Their other hand was below the table or holding up their head.

Above grade level readers seemed to see reading materials as tools to manipulate. They moved the materials around to accommodate themselves. They flipped pages as they talked, finding content that explained their thoughts. They accessed the index or table of contents. They drew things near, moved others out of their way. Below grade level readers worked around the materials. It was as if the materials had priority over the reader. Below grade level readers accommodated the materials, twisting their bodies to be able to read or write, not daring to move the book or paper in front of them to a more appropriate position.

The emotions above grade level readers showed are centred on the text and its content. Their smiles, frowns, and gestures related to the story or their understanding of the story. For below grade level readers the emotions shown centred in themselves; how they felt about reading and their ability to read rather than on the emotion described in the text. They hid their hands under the table, their faces under the brim of their hat. They squirmed, they twisted their hair, picked at sores, coughed, yawned, and cleared their throats. Their bodies and clothes seemed to become soothers.

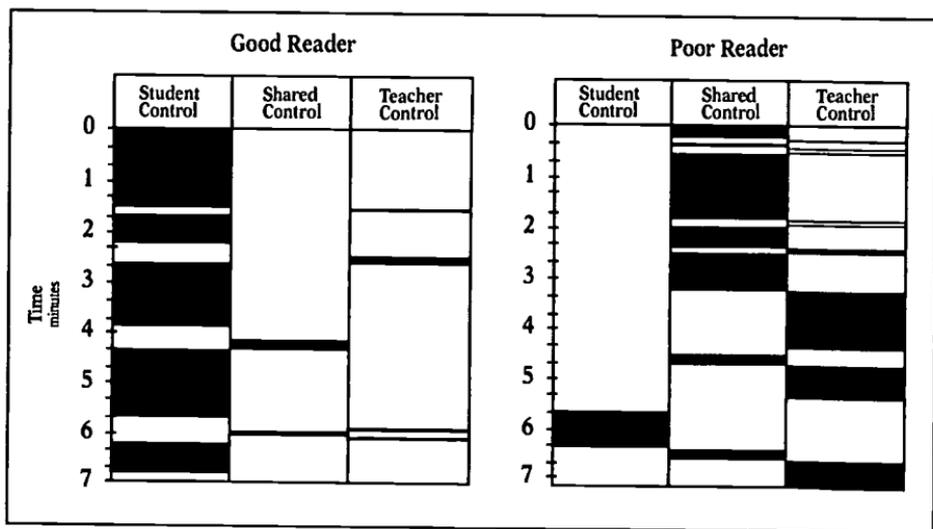


Figure 1. Examples of Individual Reader Control

Above grade level readers immersed themselves in reading and writing, literally lost themselves in the story as they held the book up so that it covered their face. Below grade level readers were as uninvolved as possible. They leaned away, turned away, looked away. They avoided. They were disengaged.

Do below grade level readers show a different amount of control than readers above or at grade level?

Descriptively, each reader was unique and had a different pattern of control over the reading materials (see Figure 1)

There are definite differences between struggling readers and exceptional readers in the amount of time they spend in physical possession of reading materials (see Figure 2).

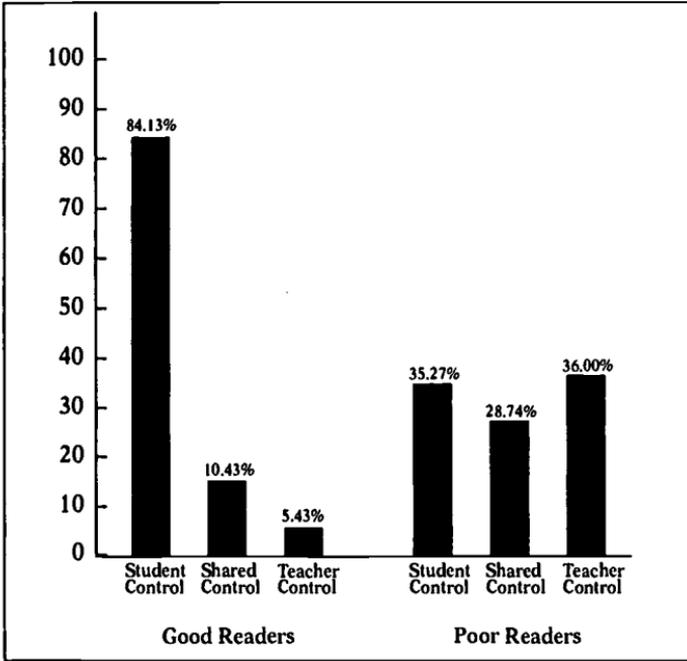


Figure 2. Physical Control of Literacy Materials for Above and Below Grade Readers

Descriptively, above and below grade readers differed in their control over the materials and the interaction. Above grade level readers spent much more time in control of reading materials than do below grade level readers. Below grade level readers touched reading materials much less than above grade level readers. Below grade level readers more control with their teachers, and their teachers controlled

the materials much more than did teachers of above grade level readers. Above grade level readers show through their physical behavior that they were active and involved while below grade level readers show that they are passive and uninvolved.

An analysis of variance confirmed a significant difference (0.05 level ($F = 4.515$, $p < 0.05$)) between above grade level readers' and below grade level readers' control of literacy materials and interactions (see Table 2).

Table 2 Study 2: ANOVA Comparing Control

Source of variation	df	MS	F	p
Student	2	3405.968	4.515	0.015*
Teacher	2	618.876	2.876	0.065
Shared	2	1156.775	3.113	0.052

* $p < 0.05$

The Tukey HSD multiple comparison showed a significant difference for reader control in above grade level and below grade level readers' control at the 0.05 level but no significant difference between above and at grade level or between at and below grade level (see Table 3).

Table 3 Study 2: Tukey HSD Comparing Reading Ability Group Difference for Readers Control

Group	Above Grade Level	Below Grade Level	At Grade Level
Above	1.000		
Below	0.012*	1.000	
At	0.204	0.531	1.000

* $p < 0.05$

For teacher control there was significance difference between above grade level and below grade level readers at the 0.05 level ($p < 0.051$) but not between above and at grade level nor between at and below grade level (see Table 4).

Table 4 Study 2: Tukey HSD Comparing Reading Ability Group Difference for Teachers Control

Group	Above Grade Level	Below Grade Level	At Grade Level
Above	1.000		
Below	0.051*		1.000
At	0.472	0.530	1.000

* $p < 0.05$

For shared control, there was a significant difference between above and below grade level readers at the 0.05 level ($p < 0.047$) but not between above and at grade level nor between at and below grade level (see Table 5).

Table 5 Study 2: Tukey HSD Comparing Reading Ability Group Difference for Shared Control

Group	Above Grade Level	Below Grade Level	At Grade Level
Above	1.000		
Below	0.047*		1.000
At	0.260	0.756	1.000

* $p < 0.05$

Summary

Readers showed different nonverbal behaviors in their interaction with the text and teacher, in how securely they handled the materials, in using the materials as tools, in the kind of emotion they showed, and how involved they were in reading. The difference between above grade level readers and below grade level readers' control over reading materials and interactions was significant, but not between above and at grade level readers nor between below and at grade level readers. Exceptional readers showed inner control through their command of the reading materials and interactions. They were active and took the lead. Struggling readers were passive and uninvolved. They showed few examples of control over materials or interactions. They had no inner control over reading. Readers at grade level showed a mixture of above and below grade level behaviors and control.

Discussion

Just like each one of us in every situation, readers send messages through their physical behavior. They display their ability and their feelings about their ability or lack of it. Exceptional readers, those that are active, thinking readers with inner control, show it through outer control, through "doing" behavior. Struggling readers, those that are passive, inactive, uninvolved readers with no inner control over their reading also show it through their lack of outer control, through "not-doing" behavior.

The visual representation of ability and inner control is important to educators in two arenas, diagnosis and instruction. Becoming aware of children's physical literacy behaviors can provide teachers with a quick way of identifying readers with difficulties. Through an awareness of a reader's physical literacy behaviors and control of materials, a teacher can easily pick out those readers who are struggling with some aspect of literacy and will know immediately which children need to be monitored for further diagnosis.

Knowing about readers' outer control will also allow teachers to become aware of the literacy instruction they provide through their own behaviors and control. Looking at teaching behaviors can make us realize that productive information can become available from aspects other than the cognitive skills and strategies we have traditionally thought of as reading instruction. Cognition is not all that is involved and focusing on it exclusively may not be the most productive in diagnosis or instruction.

All of our activities, strategies, and focused one-to-one instruction, all our thought and work, will not turn a struggling reader into an good reader without the child's involvement. Readers must take on the responsibility for their own reading, they must do the work and produce the thinking. Ownership and responsibility for the work must be accepted by a struggling reader. Just as readers must take control, we teachers must relinquish control of materials, interaction, and content. Our real job as a teacher of a struggling reader, just as we are for the exceptional reader, is to become the passive partner. By changing our own behaviors we can change our readers' behaviors. By keeping our hands off their work, we encourage them to use theirs. When children do so, their reading and writing blossoms.

References

- Atwell, N. (1987). *In the middle: Writing, reading and learning with adolescents*. Portsmouth, NH: Heinemann.
- Clay, M.M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.
- Dewey, J. (1938). *Experience and education*. NY: Collier.
- Ekman, P. (1993). Facial expression and emotion. *American Psychologist*, 48 (4), 384-392.
- Ekman, P. & Friesen, W. (1969). The repertoire of non-verbal behavior: Categories, origins, usage and coding. *Semiotica*, 1, 49-98.
- Forester, A. & Reinhard, M. (1989). *The learners' way*. Winnipeg, MB: Peguis.
- Froese, V. (1990). *Whole-language: practice and theory*. Scarborough, ON: Prentice-Hall.
- Galloway, C. (1976). *Silent language in the classroom*. Bloomington, IN: Phi Delta Kappa.
- Garner, R. (1992). Metacognition and self-monitoring strategies. In S. J. Samuels & A. E. Farstrup (Eds.), *What research has to say about reading instruction* (2nd Ed.). Newark, DE: IRA.
- Goodman, Y. (1985). A whole-language comprehension-based view of reading development. *Gnosis*, 7, 2-8.
- Hunsberger, M. (1985). When child and curriculum meet in reading class. *Reading Canada Lecture 3* (2), 101-8.
- Levenson, R. W., Ekman, P. & Friesen, W. V. (1990). Voluntary facial action generates emotion-specific autonomic nervous system activity. *Psychophysiology*, 27 (4), 363-384.
- Pearson, P.D. et al (1992). Developing expertise in reading comprehension. In S.J. Samuels & A.E. Farstrup (Eds.), *What research has to say about reading instruction*. 2nd Ed. Newark, DE: IRA
- Piaget, J. (1950). *The psychology of intelligence*. NY: Littlefield Adams.
- Purkey, W.W. (1970). *Self-concept and school achievement*. Englewood Cliffs, NJ: Prentice-Hall.
- Quandt, I.J. (1983). *Language arts for the child*. Englewood Cliffs, NJ: Prentice-Hall.
- Quant, I.J. (1977). *Teaching reading: A human process*. Chicago, IL: Rand McNally.

- Roderick, J. (1977). Describing persons in settings: Making the affective explicit. In L. Berman & J. Roderick (Eds.), *Feeling, valuing and the art of growing: Insights into the affective*. Washington, DC: ASCD.
- Rosenberg, E. L. & Ekman, P. (1995). Conceptual and methodological issues in the judgment of facial expressions of emotion. *Motivation & Emotion*, 19 (2), 111-138.
- Routman, R. (1991). *Invitations: Changing as teachers and learners: K-12*. Toronto, ON: Irwin.
- Sakari, M. D. (1994). Grabbing hold of reading. *IRA Connections*, 8 (2), 11-12.
- Sakari, M.D. (1983). *Grade two oral readers' kinesic behavior*. Unpublished Master's thesis, University of Alberta, Edmonton.
- Vygotsky, L.S. (1972). *Thought and language*. Boston, MA: MIT Press and Wiley.

Mathematics Teaching and Learning: Striving to Accommodate Changes in Emphasis—Spatial Sense

Werner W. Liedtke

Observing and listening to students in action contributes to our understanding of teaching and teaching teachers. Future changes in how subject matter is viewed, changes in the clientele, and new information about teaching and learning will make this search a never ending process.

As a beginning teacher I felt a little cheated by many of those who attempted to prepare me for this career. The disappointment that was experienced is, in part, responsible for an interest in searching for answers to the questions related to learning more about teaching (moves; strategies; skills); about teaching teachers to teach; about better preparing teachers to teach mathematics - and to better teach better mathematics; and about having teachers and teachers-to-be acquire a sense of efficacy.

During a conversation with a colleague (Chris Hodgkinson) a long time ago about a book he had authored and a review that appeared about the book, it became apparent that the colleague as well as the reviewer took great pride in the fact that the book, as such, did not teach nor did it attempt to teach. An examination of what I am interested in would reveal the opposite to be true. My search for answers to the above questions has involved more than reflecting on previous practice (Liedtke, 1996). Over the years it has - and will continue to involve:

- Teaching in classrooms to collect data about teaching strategies; about students' reactions and responses to activities/problems, students' thinking; and about changes in students' behaviour and thinking. This teaching has included demonstration lessons; sequences of several lessons for a given topic; lessons spread over several weeks, several months, over one-half year, and even in one classroom, over a whole school year.
- Observing in classrooms to collect data about teaching moves (strategies) used by teachers and corresponding reasoning by students. These observations have been carried out at all grade levels in the elementary school. A typical project for this category would con-

sist of requesting that a certain topic be taught and that response data be collected from the students by the teacher and/or by a research assistant.

- Interviewing students to collect data about all aspects of mathematics learning. The settings have included: case studies of different age and ability levels to develop and test effective interview strategies; case studies of students who require intervention; interviews with students in front of teachers and university students; and acting as a resource person for students/teachers who work with children who experience difficulties with some aspects of mathematics learning.

These types of activities illustrate an attempt to connect to the schools and then to *connect* back to students at UVic.

For many years these types of in-school activities and tasks were classified or described as observations. It is refreshing to know that these types of data collecting can be referred to and labeled with the respectable sounding term – *action research*. Mind you – an inspection of what can be included in such a category of research leads to the discovery that it is “wide-open.” Nickson (1992), in a chapter entitled: “The Culture of the Mathematics Classroom: An Unknown Quantity,” makes use of a quote by Cohen and Marion (1980) to remind us that it is difficult to ascribe a comprehensive definition to action research because usage varies with time, place, and setting (p. 105).

The words of a colleague come to mind. He observed that when asked what faculty we are in, some of us tend to hang our head and softly murmur something, something that could come close to, “Faculty of Education.” The open-ended definition of action research and a low ranking of this type of research by some who may be engaged in comparison type of studies do by no means imply that those of us who are involved in this type of work need to hang our heads or even whisper when asked to talk about our projects. It is a relatively simple task to design studies or assessment instruments that would show that mathematics students: do not know how to solve two-step problems; cannot think reflectively; lack number sense; cannot estimate; or cannot compute as well as students could several years ago. However, it could be argued that this type of information is of little or no value for those interested in searching for teaching moves, teaching strategies, teaching settings, teaching sequences, teaching materials, and examples of discourse that can contribute to fostering the knowledge of major ideas for any procedure and provide teachers with a sense of efficacy.

The framework for mathematics teaching and learning has changed and is changing. That implies that many previous projects are in need of

ng. A new perspective about mathematics learning and teaching, a

new framework, new goals and new content (*Mathematics K to 7 – Integrated Resource Package 1995*) present new challenges since teachers need to find new foundations for building durable efficacy beliefs that are consistent with the teaching practices required for this new perspective. A renewed search for more answers about teaching is required.

An elaboration about the components of change is beyond the scope of this paper. However, a few points and a few benchmarks are used briefly to illustrate major changes and aims. The following quotes illustrate recent thinking about mathematics teaching and learning and are included to provide information for reflection.

One perspective about mathematics learning can be illustrated by changing the question, "How is Johnny doing in mathematics?" to "How is mathematics doing in Johnny?" (Cooney, 1994). D'Ambrosio and D'Ambrosio (1994) make the statement that, "The original sin of mathematics education, which prevails to this day, is to see education as the channel through which we diffuse mathematics instead of considering mathematics an important channel through which we educate people" (p. 694). Many mathematics educators believe that mathematics teaching can be used to promote language, reading comprehension, as well as reasoning and evaluative skills.

The framework of the new *Integrated Resource Package* (Ministry of Education, 1995), the new goals and many aspects of the revised content, can be used as indicators of moving in the desired direction described by D'Ambrosio and D'Ambrosio. According to the IRP (pp. 2-4), mathematical literacy, or mathematical power, is defined to include: developing a positive attitude (interest, imagination, willingness to take risks, tolerance for ambiguity); becoming mathematical problem solvers (non-routine problems); communicating mathematically (discussing, writing); connecting and applying mathematical ideas; reasoning mathematically; using technology; and estimation and mental math. Major general goals include fostering the development of number sense, operation sense, spatial sense, and measurement sense. The new framework and the general goals are exciting and hold a lot of promise. They can have a very positive impact on the teaching-learning-assessment experiences for students in British Columbia.

One recent project (Liedtke, 1995) was related to the new goals of the IRP as they relate to fostering the development of spatial sense. Some of the information about spatial sense, which can be defined as "an intuitive feel for one's surroundings and the objects in them", includes such facts as:

- Spatial sense is an important part, not only of geometry, but of mathematics learning (i.e. problem solving) since it is indispensable in giving meaning to our mathematical experience (Wheatly 1990);

- spatial sense can be developed and improved (Bruni and Seidenstein 1990); and
- a special classroom atmosphere is required including appropriate selection of activities presented in a setting that gives students an opportunity to describe their mathematical thinking in whole class discussions (Yackel and Wheatley, 1990).

This information about spatial sense and the fact that most of the activities described by different authors tend to involve two-dimensional materials, was used to develop a program or sequence of lessons for a grade one class that focused on the use of three dimensional objects. The lessons were planned for once a week between September and December and delivered by the author. Small group activities were prepared and presented about once a week between October and March. After getting these started, they were taken over by a research assistant. The data collected included the recording of verbal responses, analyzing responses on activity sheets, and preparing a videotape summary of some of selected activities. A diary kept by the research assistant included records of usual and unusual responses, as well as observations and reflections. Several of the lessons and activities were also presented to a group of grade three and grade six students.

The purpose of this paper is not to dwell on the description of specific lessons. However, a brief look at the introductory setting can provide some insight into the goals of the project. During the initial tasks, which included the construction of a building by each student and the creation of a difference train, (lining up blocks and then talking about how adjacent blocks differ), it became obvious, as one would expect, that comments about similarities and differences included the use of incorrect terminology (i.e., square for cube) and language that was of a very general nature (i.e., big). A heavy reliance on size (big), lengths (longer, shorter), and height (taller, shorter) dominated the comparison discussions.

Familiar objects and a flashlight were used to explain how an overhead projector works. After familiar objects (pencil, scissors, etc.) were identified from the shadows they cast on the wall, a block (i.e., square-based pyramid) which was hidden from the students' view, was used to cast a square shadow. Every student was confident that they knew the identity of the hidden block (cube) – and most of them named it incorrectly (*square*).

It was a very satisfying experience to observe the changes in responses and behavior throughout the project. Students began to realize that there exist questions or tasks that can have more than one correct

things that look different can in some ways be the same (i.e., blocks identified to be different can have the same number of faces). Gradually many began to adopt the expression "it depends" or "it could be" as they looked at such things as shadows, drawings of blocks, side-views of buildings, and drawings of buildings. One of my favorite memories is of Andrew who, when challenged to find from a box of blocks one that he thought matched the shadow of a square, selected four different blocks. As he continued his examination of the block in the boxes he declared, "It could be some of the others, but it would be sort of tricky." When asked to explain, he indicated that some blocks, when held at an angle, could make a square shadow.

As a result of this project, it was possible to isolate types of activities, samples of discourse, questioning strategies, and classroom settings that are deemed beneficial as far as making a contribution to fostering the development of spatial sense is concerned. The activities and materials that were isolated are suggestive of one possible teaching sequence disguised to foster the development of spatial sense (Liedtke 1993, 1994). The observations made during the project reinforced the statement by Cobb et. al (1992) that, "the suggestions that students can be left to their own devices to construct the mathematical ways of knowing compatible with those of wider society is a contradiction in terms..."(p.27). Teachers have an important role to play.

Observing students in action and listening to their comments, questions, reactions, and generalizations have made a contribution to providing partial answers to the questions about teaching and teaching teachers. However, future changes in how subject matter is viewed, changes in the clientele, and new information about teaching and learning will make the search for answers a never ending process. There may be times when this search can become a little frustrating because according to National Council of Teachers of Mathematics president Price (1996) part of the answer to the question, "Why teachers aren't better prepared?" can be found in the words of the great philosopher Pogo who said, "We have met the enemy and he is us"—but more often than not, the continuing search is very exciting.

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References

- Arithmetic Teacher* 37 (February 1990). Focus Issue: Spatial Sense
- Bruni, J. & Seidenstein, R. (1990) Geometric Concepts and Spatial Sense. In J. Payne (Ed.) *Mathematics for the Young Child* (pp. 202-27).
- Reston, Va.: National Council of Teachers of Mathematics. Cobb, P; Yakel, E. & Wood, T. (1992, January). A Constructivist Alternative to the Representational View of Mind in Mathematics Education. *Journal for Research in Mathematics Education*, 23, 2-33.
- Cooney, T. (1994, December). Research and Teacher Education: In Search of Common Ground. *Journal for Research in Mathematics Education*, 25, 608-636.
- D'Ambrosio, U. & D'Ambrosio, B. (1994, December). An International Perspective on Research Through the JRME. *Journal for Research in Mathematics Education*, 25, 685-696.
- Kieran, C. (1994, December). Doing and Seeing Things Differently: A 25-Year Retrospective of Mathematics Education Research on Learning. *Journal for Research in Mathematics Education*, 25, 583-607.
- Liedtke, W. (1996, March). Reflecting on Previous Practice (Letter to the Editor). *Journal for Research in Mathematics Education*, 27, 247.
- Liedtke, W. (1995, September). Developing Spatial Abilities in the Early Grades. *Teaching Children Mathematics*, 2, 12-18.
- Liedtke, W. (1993-94). Teaching Geometry—Developing Spatial Sense. *PrimeAreas*, 36, 56-64.
- Ministry of Education. (1995). *Mathematics K to 7 – Integrated Resource Package*. Victoria, B.C.: Curriculum Branch 1995.
- National Council of Teachers of Mathematics. (1989). *Curriculum and Evaluation Standards for School Mathematics*. Reston, Va.: The Council.
- Nickson, M. The Culture of the Mathematics Classroom: An Unknown Quantity. (1992). In D. Grouws (Ed.), *Handbook of Research on Mathematics Teaching and Learning* (pp 101-114). Don Mills, Ontario: Maxwell Macmillan Canada, Inc.
- Price, J. (1996, January). Who Teaches Teachers? (President's message) *NCTM News Bulletin*, 3.

- Professional Standards for Teaching Mathematics*. (1991). Reston, Va.: The Council.
- Wheatley, G. (1990, February). Spatial Sense and Mathematics Learning. *Arithmetic Teacher*, 37, 10-11.
- Yackel, E. & Wheatley, G. (1990, February). Promoting Visual Imagery in Young Pupils. *Arithmetic Teacher*, 37, 52-58.

Using Theatre to Explore Social Issues

Carole Miller

Increased reporting of child sexual abuse has resulted in the implementation of a variety of personal safety programs across North America. This paper details a Theatre-in-Education project focusing on child sexual abuse that served as an adjunct to the "Learning for Living" curriculum.

For four years Dr. Lorie Robinson, an expert in the field of child sexual abuse, and I were involved in a Theatre-in Education project focusing sexual abuse prevention. We toured the play, *No More Secrets* as an adjunct to the Learning for Living curriculum to over 3,000 students in the Victoria and Sooke school districts. Two years ago, with the support of a University of Victoria research grant, we were able to remount the play with many of the original cast members. This paper documents the rationale, process, and presentation of that project.

Increased reporting of child and adolescent sexual abuse cases has led many communities throughout Canada and the United States to implement personal safety programs in elementary and secondary schools. Schools provide an excellent venue for the implementation of prevention programs. There are teachers, counselors and administrators available who may form special relationships with a student providing the child with one-to-one support. The purpose of personal safety programs is to prevent the sexual abuse of children as well as to encourage children who have been or are in an abusive situation to tell a person whom they trust about the abuse. Instead of using the traditional child abuse prevention format such as a lecture or video, I implemented a Theatre-in Education model using adolescents as student actors.

According to Harwood, (1984) "Theatre is one of the most powerful instruments humans have for exploring and attempting to understand themselves, the world they live in and their place in it." (p. 13) Recently there has been a tremendous increase in the use of educational media to inform us about social issues. As a drama teacher, and as a teacher of drama teachers I have become increasingly aware of the responsibility of using the theatre form to involve students in social issues that may be difficult or even painful for them to acknowledge.

Theatre-in-Education is usually a self-contained presentation. A play of format has direct educational goals, in this case personal safety.

Frequently preplay discussions and/or activities provide an introduction to the topic. According to Pammenter (1993)

"Because it appears to the child uninvited, TIE must take its social responsibility very seriously. Ultimately its responsibility is only to the child ... That responsibility is to create a rich and meaningful experience: an experience that has been well planned, has depth, truth, ... artistic integrity that reaches and involves the child, and is challenging to both child and performer." (p.69)

In planning the initial project almost ten years ago, a deliberate choice was made to use junior high school actors as it was hoped that the audience would develop a stronger identity with Jenny, the young protagonist in the play. The goal was to use theatre as a means of empowering children to be able to say "no" or to disclose an abusive situation.

Much of the current literature on child sexual abuse indicates that threats, coercion, tricks, and bribery are frequently used by offenders to keep the children from disclosing sexual abuse. (Berliner & Conte, 1990; Elliott, Browne and Kilcoyne, 1995). Children who are involved in a sexually abusive experience are expected to keep the secret. They fear that if they tell someone, they will not be believed, that something awful will happen to them, and worst of all, that the abuse is their fault (Berliner & Conte, 1990).

Esslin (1977) suggests that "the play which communicates important lessons about social behavior...may also open up unknown areas of emotional experience" (p.117). Therefore, by transferring learning about how to prevent or how to stop the sexual abuse from the cognitive to the affective domain, the goal was to tap into the powerful experiences of a child in order to encourage disclosure and to prevent further abuse.

Before approaching the students actors who would be invited to participate in this project, permission of their parents was requested. As the teacher of their children, I believed it mandatory to be accountable to the parents and to honor their feelings and opinions about their children's involvement. As well, without contacting the parents, there would be no way of ensuring that the students would receive the necessary support from home during the rehearsal process and while on tour.

Dr. Robinson attended our first group reading of the play in order to answer any questions and to provide the students with background in the area of sexual abuse and to discuss her role in the presentation. She assured the cast that she, as well as the school counselor would be present at all of the performances. Social service agencies were also notified of the performances and invited to attend.

In order to ensure an open dialogue, we decided to begin the rehearsal process with small, two character scenes. In that way a considerable amount of time could be spent discussing the issues and monitoring the feelings that might be surfacing for the student actors. This approach was extremely important since the topic had not been a part of any previous school work or discussions involving me and the students. The actors needed time to digest the issues and to work with their own feelings within the role, sometimes on a one-to-one basis. Having the time to "check things out" with the student actors was a priority during the early rehearsal time as well as while on tour.

As teachers, we are in a unique position to impose our 'agendas' and by doing so, may inadvertently manipulate children. Therefore, in the choices we make in our classrooms, and in the theatre we choose to present, we have to be very sensitive, aware, and respectful of the students and audience that we are working with, whether we are performing or creating the drama with them.

Each presentation began with a general introduction of the topic of child sexual abuse provided by Dr. Robinson. She was honest and direct with the audience recognizing that they are certainly aware and not immune to the society in which they live. She discussed the "myth of the stranger" in words easily understood by elementary school-aged children explaining that if sexual abuse is going to occur, it is most likely going to be by someone that the child knows, is comfortable, with and may even love. Current research suggests that teaching children that potential offenders may be of any relationship to a child is a valid strategy used in most programs to deal with the fact that many children are abused in on-going relationships they have with an adult (Finkelhor & Dziuba-Leatherman, 1995).

The relationship between the adult and child is what usually makes the abuse so overwhelming for children. The issues of fear, loyalty, shame, guilt and love are often all mixed up. For a child to tell about the abuse may very well have negative consequences within the family structure. It must be explained to children that it will be necessary for other adults to become involved, to ensure the abuse stops and the required help is made available.

In the play, *No More Secrets*, the protagonist, Jenny, is being abused by her baby-sitter, Sparky. Jenny is a bright student who is exhibiting some of the behaviors of an abuse victim. Recently her grades have been falling and she has begun to have nightmares. Sparky is a young married man and considered to be the "nicest guy" in the neighborhood. Jenny's mother, a single parent, has known him and trusted him for

Jenny feels very strongly towards Sparky and even though she

does not want the abuse to continue, she is afraid of what will happen to him if she tells. After much prodding from her best friend Diedie, she finally describes the abuse, on the condition that Diedie promises not to tell.

Fortunately, Diedie does tell her parents who in turn, tell Jenny's mother. Once the secret is out, Jenny speaks to the audience about how much better she feels and tells them that if they are experiencing the same thing to tell someone and to keep telling until someone believes them. She faces the audience directly saying, "Above all remember this was not your fault no matter what someone tries to make you believe" (Snyder & Lenzi, 1986).

According to Booth, (1992), "Although the context of the play may be unreal, the issues and the problems faced are similar to those of many young children. The analogies and the metaphors used allow the audience a safe mirror in which to examine their concerns" (p.23). A fictional treatment of a problem with which the audience can identify allows the children to see it from different viewpoints and to see how someone else might deal with a specific concern.

In plays dealing with social issues, the central concern of the play must be presented in a way that makes it universal and comprehensible to a wide range of people. In this context the children will be able to be a witness to the dilemma and begin to understand and gain a deeper understanding. This understanding is more than an intellectual knowing, it includes an emotional knowing as well.

By observing their body language, it was frequently possible to identify children in the audience who may have been at risk for abuse. We noticed that some children frequently looked down at the floor, they rocked, or their shoulders were hunched over. They looked as if they were trying to disappear into themselves. This confirmed our initial belief that it is critical that the school counselor be in attendance at every performance so that the students know there is someone who can help them and who will not disappear as soon as the play is over. After the presentation, Dr. Robinson spent considerable time with the audience discussing the issues that Jenny was confronting. During this reflective period many children came to understand how painful it is or might be to experience the turmoil of this type of ordeal. They began to see the world not as black and white but as a place where there are no easy answers and that difficult situations require difficult and often painful decisions.

The final aspect of the program was a question and answer period. Every child was given a paper and pencil and asked to write something they might have come to their mind or that might have concerned them

while watching the play. They were told that they didn't have to include their name, but if they wanted to talk to someone privately, to sign their name. Every question was answered honestly and directly. One question that was repeated at every school was, "Did this really happen to Jenny?" Jenny answered this question herself by telling them that although this is a play and the events did not happen to her, they do happen to a lot of other children just like her. Children also wanted to know what happens to the offender, what if it is a member of your family and not a neighbour, what if no one believes them?

Disclosing abuse is one of the most importance concepts that is or should be taught in prevention programs. Children need to be encouraged and to learn to continue to tell if they are not initially believed (Abrahams, Casey & Daro, 1992; Draizer, Witte & Fryer, 1989).

Paterson (1989) tells us that we can only hope to help children develop through example, through "an awareness of the need for strength with which to withstand evil and to recognize good" (p.35). When we help children to look at the world, difficult though that world may be, they will be more properly equipped for their place in it. Although the specific focus of the program was not on victims of ongoing abuse, nevertheless, it was sobering and sad to see the number of children who actually disclosed after the performances.

Traditional prevention programs are having a significant effect on opportunities for children to learn about personal safety and to get help if they are in abusive situations. However, counselors, teachers, and administrators acknowledged that the performances of *No More Secrets* offered a powerful alternative to traditional personal safety programs. I maintain that viewing the live performance provided a meaningful context for discussion and offered the students a unified experience to which they could all relate either personally and/or empathetically.

Theatre is a powerful means of education, both aesthetically and emotionally. It is for this reason vigilance is required and important questions must be asked of ourselves when we embark on plays involving sensitive issues. For example: What drew me to this play? Why am I doing this piece? Is what I am doing respectful of the learner and ethically moral practice? By working in theatre and interpreting a script which deals with crucial issues and making it our own we can learn much about ourselves, our fellow actors, members of society and society itself.

Cecily O'Neill (1991), states that "a genuine encounter with theatre and an experience of learning can be a process of discovery...that can provide both a powerful sense of disclosure and illumination and a of growing insight and mastery (p.23). Desmond Davis (1981),

concur when he writes, "It is through the viewing as well in the opportunity to discuss and reflect that theatre can demonstrate its greatest power" (p.67).

Note: For a more detailed discussion of this work see Miller, C. 1996.

References

- Abrahams, N., Casey, K., & Daro, D. (1992). Teachers' knowledge, attitudes, and beliefs about child abuse and its prevention. *Child Abuse and Neglect*, 16, 229-238.
- Berliner, L., & Conte, J.R. (1990). The process of victimization: The victims' perspective. *Child Abuse and Neglect*, 14, 29-40.
- Booth, D. (1993). *Censorship goes to school*. Markham, Ontario: Pembroke.
- Davis, D. (1981). *Theatre for young people*. Don Mills, Ontario: Musson Book Company.
- Elliot, M., Browne, K. & Kilcoyne, J. (1995). Child sexual abuse prevention: What offenders tell us. *Child Abuse & Neglect*, 19(5), 579-594.
- Esslin, M. (1977). *An anatomy of drama*. New York: Hill and Wang.
- Finkelhor, D., & Dziuba-Leatherman, J. (1995). Victimization prevention programs: A national survey of children's exposure and reactions. *Child Abuse & Neglect*, 19(2), 129-139.
- Harwood, R. (1984). *All the world's a stage*. London, England: Methuen.
- Kraizer, S., Witte, S., & Fryer, G.E. (1989, September/October). Child sexual abuse prevention programs; What makes them effective in protecting children? *Children Today*, 18(5), 23-27.
- Miller, C. (1996). "When you tell, does the hurt go away?" The impact of theatre in education in sexual abuse prevention. *Stage of the Art*, 8 (4), 13-17.
- O'Neill, C. (1991, March/April). Artists and models: Theatre teachers for the future. *Design for Arts in Education*, 92(4), 23-27.
- Paterson, K. (1989). *The spying heart: More thoughts on reading and writing books for children*. New York: E.P. Dutton.

Attention Deficit Hyperactivity Disorder: A Brief Review Of Issues

Jim Ward

This paper examines the area of ADHD with reference to its scientific status. It includes a review of research related to the psychological processes involved, the proposed management/teaching strategies, the use of stimulant medication, and voices a personal perspective.

It is now generally recognized that a substantial proportion of children will require special education at some point in their school lives. These include a significant minority with obvious severe and/or permanent disabilities, a larger group characterized by learning problems, distractible or disruptive behaviour, and poor social adjustment. Traditionally, these children have been seen as suffering from learning or emotional/behavioral disabilities and have received support.

However, there is now a tendency for many of these children to receive alternative diagnoses, focusing primarily upon problems of attention and/or hyperactive behaviour and frequently leading to pharmacological treatment. The result has been that what is now described as Attention Deficit Hyperactivity Disorder (ADHD), has become one of the most widely publicized and controversial areas of special education and pediatric psychiatry, figuring extensively in the technical literature and the media, both print and electronic.

Although the term is rapidly coming into common use, ADHD forms part of a classification of psychiatric disorders that has been evolving for over forty years. It is described in the current edition of Diagnostic and Statistical Manual of Mental Disorders (DSM,1994) of the American Psychiatric Association as a persistent pattern of inattention and/or hyperactivity/impulsivity that is more frequent and severe than is typically observed in individuals at a comparable level of development. Three basic types are identified: ADHD Combined Type, ADHD Predominantly Inattentive, and ADHD Predominantly Hyperactive and Impulsive. This new classification represents a minor amendment to the third edition of DSM in which the main disorder is Attention Deficit Disorder, the two main subtypes being ADHD and ADD Without Hyperactivity. The annotation states that the estimated prevalence rate of ADHD is 3-5%: in other words representing at least one child in a

typical classroom. Attention deficit disorders are frequently observable in early childhood and are apparently far more common in males (ratios vary from four to nine males to one female). There appear to be both genetic and neurological factors in causation.

In its more serious forms, ADHD seems to be heir to disorders such as minimal brain damage, developmental aphasia, and hyperkinesia that have enjoyed temporary vogues in the past. However, for a variety of reasons, including the work of well-organized advocacy groups such as CHADD (Children with Attention Deficit Disorders) and the publicity given to stimulant drugs, professional and public acceptance in North America continues to grow. There also exists a vast body of published work bearing on the disorder, along with mainly speculative explanations of its origins. For instance, in 1993 many of the more important findings, together with discussions of the various issues involved, were made available when the journal *Exceptional Children* devoted a monograph issue to the subject. Since then, however, the volume of research and publication has continued to increase enormously. Information regarding ADHD is also made available through CHADD and many other groups that distribute user-friendly advice to parents, teachers, and other professionals through self-help books, teaching materials, and videos (Parker, 1992, Fowler, 1992, Goldstein and Goldstein, 1990).

The above information is intended to provide a sympathetic understanding of individuals with the condition and also to suggest appropriate methods of instruction and management. For instance, the Parker text refers to well-structured teaching methods, curriculum adaptation, effective use of reinforcement, and training in coping strategies. Since ADHD children often have problems with interpersonal behaviour, considerable emphasis may be placed upon teaching pro-social behaviours. Generally speaking, the suggestions seem similar to those made for other at-risk populations.

The diversity and severity of their presenting behaviours indicate that many students with ADHD require comprehensive and long-term treatment involving, wherever practicable, the support of a multi-disciplinary team. Ideally this should include, in addition to the primary input from classroom teachers and parents, help from special educators, school psychologists, social workers, pediatricians, and other relevant professionals. Inevitably there are difficulties in providing a full range of resources but in the United States, as in British Columbia, some degree of help is normally available through funding for children with learning and/or behavioural disabilities. Despite this, CHADD has been extremely persistent in its attempts to have ADHD included as a separate category for funding, both in law and special education policy. To

date however, these efforts have been unsuccessful as it is argued that for most purposes, adequate support is available under existing provisions, including and in addition to Individuals with Disabilities Act (IDEA), Section 504 of the 1973 Rehabilitation Act.

Although the nosological category of ADHD has been criticized from a variety of viewpoints, there can be no doubt that many children who show its characteristics have very real difficulties in many aspects of their functioning at school or in the home and among their peer groups. They have a developmental disorder that calls for skillful and sensitive support. However, heated controversy still persists over (a) the diagnosis of ADHD and the numbers of children affected and (b) treatment, in particular the widespread, but often inappropriate use of medically prescribed stimulant drugs such as methylphenidate (Ritalin).

DSM 4 notes that ADHD exists in all cultures, with variations in prevalence being attributable to differences in diagnostic practices. Here it may be of interest to note that the British Psychological Society, among other scientific bodies, has a current working party on ADHD. This is probably very timely. The diagnosis of ADHD and the prescription of Ritalin has been estimated at about fifty times more common in North America than in Europe where ADHD problems are more likely to be viewed as socio-educational rather than psychiatric. However, such cautious attitudes towards the disorder have recently been criticized by a small, but increasingly vociferous group of psychologists and child psychiatrists, who believe that many diagnosed children should receive treatment involving stimulant medication. Incidentally, on the grounds that their training and professional practices are appropriate, some clinical psychologists in the United States and elsewhere are asking for the right to prescribe psychotropic drugs such as Ritalin; clearly yet another of the many controversial issues which surround ADHD. A selection of these will be discussed briefly below. The accompanying questions are designed to provoke discussion rather than act as a framework to organize the materials.

The Current Scientific Status of ADHD

Although few would doubt the existence of a substantial group of persons with some form of attentional problem, the various DSM categorizations of ADHD have not yet found general scientific acceptance. For example, Shaywitz, Fletcher and Shaywitz (1994) have proposed an alternate model, remarking with some irony that the word "attention" per se is not mentioned in the DSM diagnostic criteria. In the late eighties the lack of consensus on the matter was brought into sharp focus by attempts to have attention deficit disorders included in the categories

recognized by IDEA, the 1990 version of Public Law 94-142. A well-organized campaign by advocacy groups was unsuccessful and indeed the Council for Exceptional Children (CEC) did not lend its support, arguing that students showing severe ADHD-type problems could be adequately serviced under other IDEA categories such as Learning Disabilities or ED.

Reid, Maag and Vasa (1994) challenge the emerging orthodoxy of ADHD on a number of grounds. As regards the validity of the disorder, they question the diagnostic assumptions that ADHD can be accurately differentiated from other related disorders, that existing instrumentation such as rating scales is accurate and reliable, and that evidence exists for an organic basis for ADHD. They point out that the concept of 'disorder' is a function of a constructed social world that defines deviance in particular ways. Hence, the considerable differences between countries in identification and methods of treatment. A number of papers are cited that question the diagnostic usefulness of DSM in general, but Reid et al. are not attempting to discredit its use in psychiatric practice. Their main argument is that the use of the categories described in DSM for educational purposes should be evaluated, not from a psychiatric perspective but from an educational one in terms of improved programs for instruction and management and more effective delivery of special services. Here it is worth mentioning that an earlier paper by McBurnett, Lahey & Pfiffer (1993) takes a rather more positive view of the relevance of DSM to special education.

The issue of identification through data from rating scales is dealt with in some detail, particularly scales that have construct validity based upon factor analysis. It is argued that factor analysis tends to obscure subtle variations among children, many of whom demonstrate multiple difficulties and may receive high ratings on several dimensions. In any event, behavioural dimensions may reflect referral artifacts rather than traits. Other technical problems such as relatedness among apparently separate factors may appear.

Finally, Reid et al. (1994) examine the issue of biological causation for ADHD. They note that research attempts to establish a biological etiology for the disorder have produced data that are inconclusive and often contradictory (Riccio, Hynd, Cohen and Gonzalez, 1993). However, this has not inhibited speculation about a wide range of possible organic causes. One problem is that such studies as the frequently cited Positron Emission Tomography (PET) experiments (Zametkin and Rapoport, 1987) are accepted uncritically despite the reservations entered by the researchers. There are obvious problems with the argument that a positive response to stimulant medication indicates some

form of biological etiology: Most children experience an elevation in mood. Such caution is echoed in the DSM 4 Manual which refrains from making any definitive statements about laboratory or clinical findings.

In its present form, ADHD subsumes such a wide variety of behaviours and potentially causative factors that it is highly unlikely that any one biological explanation would be satisfactory. For instance, there now appears to be a considerable increase in the proportions of children showing conduct disorders and distractible behaviours. These include, for example, significant increases in the numbers of girls who twenty-five years ago would have found little mention in epidemiological studies (Ward,1975). Clearly, explanations based upon cultural factors are more plausible as it is highly unlikely that very large numbers of children have suddenly become neurologically impaired. In any case, any biological explanations would have to connect genetic factors, neural abnormalities, their neurophysiological correlates and the nature of any pathological implications in the light of what we are beginning to understand about cortical development.

It would seem, therefore, that two fundamental questions need to be posed: (1) is there any need for another category of disability? and (2) is it appropriate for a psychiatric classification system to be used for educational purposes?

Psychological Issues

There appears to be no end to the list of behavioural deficits and conditions that have been associated with ADHD. Among the most frequently cited are low arousal and motivation, difficulties over reinforcement, inability to attend to salient stimuli, failure to use appropriate strategies for problem solving hence, impulsive or other maladaptive response styles, inability to employ verbal self regulation, inefficient transfer of training or generalization, poor interpersonal skills, school achievement well below expected grade level, low self-esteem and self-efficacy. These problems reflect skill deficits across many areas of psychological functioning. However, they would be experienced by many with Learning Disabilities, Behavioral Disabilities, and other marginalized students, therefore compounding the difficulties inherent in making a firm diagnosis of ADHD. Even so, the list does suggest the areas that require attention and possible intervention techniques derived from research in special education and rehabilitation.

Although research findings that directly relate to ADHD are comparatively sparse, a vast amount of basic psychological work bears upon issues as attention, differential reinforcement, stimulus selectivity,

and strategy use. In behavioural terms, attention is a cognitive construct intervening between a stimulus and a response. Thus any attentional failure could be analyzed with respect to the original quality of the stimulus, capacity to respond, motivation and/or arousal, and comprehension of instructions. Since most learning involves discrimination between complex sets of stimuli, selective attention is crucial. However, it is usually claimed that the ADHD person demonstrates overinclusive, though transient, attention and, some of the time, over selective attention. This problem may be approached by the latest computer-based forms of assessment (Dupuy & Greenberg, 1993). Another avenue of attack may be through studies into difficulties in the segmentation of stimuli, both visual and auditory which may account for many of the learning difficulties of ADHD and LD students.

A third question to be posed is: Are there psychological characteristics unique to ADHD that would accurately define the condition and lead to more effective diagnosis?

Issues in Teaching and Management

Writers such as Goldstein and Goldstein (1990) consider that ADHD essentially derives from skill deficits in such areas as academic activities, use of strategies, and interpersonal relationships. The effects of these problems are often compounded by other negative factors such as low or transient arousal and interest, failures to make appropriate social discriminations, high rates of maladaptive behaviours, needs for continuous attention and social reinforcement. Low levels of self esteem are typical, as are external forms of locus of control. Westby and Cutler (1994) emphasize the presence of poorly developed verbal abilities that might account for difficulties in self regulation and the somewhat equivocal results obtained by cognitive behaviour modification methods.

The experience of my colleagues and I at the Special Education Centre at Macquarie University has been that in order to provide effective remediation for their problems, ADHD children should receive structured and systematic teaching designed to give a high level of success and reinforcement, training in effective strategies for learning and self-management addressing problems of generalization, coping skills in the usual glorious confusion and unpredictability of the elementary classroom, and social training in natural as opposed to contrived situations. This demands concentrated individual instruction and teacher attention along with opportunities to internalize adaptive response styles and self-regulated behaviour in a small group setting. Unfortunately, optimal conditions are often difficult to achieve in the regular

classroom. Therefore, is there a case for ADHD students to be taught in small specialized groups along with those from other high incidence conditions such as LD?

Stimulant Medication

The widespread use of psychotropic drugs such as Ritalin constitutes an unprecedented intrusion of pediatric medicine into education. It is estimated that, at the very least, over two million children in the U.S. are taking one of the common stimulant drugs in order for them to cope with their difficulties in learning and behaviour. It is remarkable that, despite their use over the last fifty years very little is known about the precise pharmacological action of such drugs. It is accepted that Ritalin usually has short-term beneficial effects upon ADHD behaviour in about 75% of cases and has few long-term addictive effects upon those who can benefit. Effects upon school learning are less clear-cut and vary according to the subject in question (Alto and Frankenberger, 1995). Since there are many documented side effects such as disturbed sleep, the administration of such stimulants requires very careful controls over the level of dosage and close monitoring of their effects.

The wholesale prescription of drugs has important implications for classroom teachers in the sense that they may be on the receiving end of behaviour exacerbated by inappropriate or unnecessary prescription, failures to administer the drug at home prior to school, severe side effects, rebound effects and parental complaints that the school has failed to ensure that additional doses were given during the day. Through their everyday observations teachers may be required to contribute to the development of the ADHD child's program of medication and this may involve a considerable amount of detailed note taking and input into the work of a multidisciplinary team. Such work can of course involve issues of personal ethics. It can also pose more serious questions of law and public policy. Witness the possibility that in the USA schools that fail to administer prescribed medication may be in breach of Section 504 of the 1973 Rehabilitation Act, despite their conformity to IDEA (Reid and Katsiyannis, 1995). The above issues require that the legal responsibilities of schools regarding drug administration be clarified.

Explanations in Terms of Personality Theory

One cannot help but sympathize with the view that much of ADHD-type behaviour is best explained in terms of general personality theory rather than psychiatric nosology. It could, therefore, represent the

ies of traits such as introversion/extroversion. For instance,

according to Hans Eysenck (1977) extreme extroverts are poorly conditionable, have low levels of arousal (hence their need for continual changes in stimulation, particularly when emotionally disturbed), and are susceptible to all manner of anti-social behaviours such as criminality, substance abuse, and severe problems of socialization. Such tendencies are greatly heightened by exposure to socially disadvantaged and often abusive home backgrounds, often resulting in the more sensational forms of criminal behaviour. Unfortunately, the redefinition of this problem area more in terms of ADHD has led to some middle class parents being frightened by the likelihood that their boisterous, perhaps rebellious, child is liable to grow into some kind of a monster if he, usually he, is not given medication. At the classroom level, inappropriate teaching methods undoubtedly compound the problems of many ADHD students who, in any event, constitute a severe challenge for a policy of total inclusion.

Despite its difficulties in definition, diagnosis and treatment, ADHD relates to a set of fascinating and complex problem areas providing input to fields as diverse as social policy making and neurotransmission. The number of topics for future educational research is legion.

References

- Alto, J.L. & Frankenberger, W. (1995). Effects of methylphenidate on academic achievement from first to second grade. *International Journal of Disability, Development & Education*, 42 (3), 259-273.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, D.C.: APA.
- Dupuy, T.R. & Greenberg, L.M. (1993). *TOVA Manual: Test of variable attention computer program*. Los Alamitos, CA: Universal Attention Disorder.
- Eysenck, H.J. (1977). *Crime and personality* (3rd ed.). London: Routledge.
- Fowler, M. (1992). *Educator's manual: An in-depth look at attention deficit disorders from an educational perspective*. CHADD: Plantation, Florida.
- Goldstein, S. & Goldstein, M. (1990). *Managing attention disorders in children: A guide for practitioners*. New York: Wiley & Sons.
- MacBurnett, K., Lahey, B & Pfiffer, P.J. (1993). Diagnosis of attention deficit disorder in DSM IV: Scientific basis and implications for education. *Exceptional Children*, 60 (2), 108-117.

- Reid, R. & Katsiyannis, A. (1995). Attention deficit disorder and section 504. *Remedial and Special Education, 16* (1), 44-52.
- Reid, R., Maag, J.W. & Vasa, S.F. (1994). Attention deficit disorder as a disability category: A critique. *Exceptional Children, 60* (3), 198-214.
- Riccio, C.A., Hynd, A.W., Cohen, J.J. and Gonzalez, J.J. (1993). Neurological basis of attention deficit hyperactivity disorder. *Exceptional Children, 60*, 108-117.
- Ward, J. (1975) Identifying the emotionally disturbed child. *The B.C. Teacher, 55* (1), 14-17.
- Westby, C.E. and Cutler, S.K. (1994) Language and ADHD: Understanding the bases and treatment of self-regulatory deficits. *Topics in Language Disorders, 14* (4), 58-76.
- Zametkin, A.J. & Rapoport, J.L. (1987). Neurobiology of attention deficit disorder with hyperactivity: Where have we come in fifty years? *American Academy of Child and Adolescent Psychiatry, 26*, 676-686.
- Zentall, S.S.(1993) Research on the educational implications of attention deficit disorder. *Exceptional Children, 60* (2), 143-153.

Past Achievements, Present Objectives, and Future Directions of Electronic Home Learning Programmes in British Columbia

Kathie M. Black

Recent home learning programme developments throughout the province of British Columbia, in particular those that incorporate technological tools, are presented. This summary will broaden the awareness of educational professionals regarding programmes designed to complement the home learning situation.

Introduction

Home learning programmes are becoming more popular throughout the world since many people believe that their children do not receive adequate attention, learning opportunities, or university preparation from public schools (Gatto, 1992a, Gatto, 1992, Holt, 1976). Rural settings, religious or family values, parental occupations, and individual needs of home schooled children vary widely throughout British Columbia (B.C.). Many families have differing values from those proposed as part of public education and they are searching for guidance and for resources to help them teach their children.

In this paper, some recent home learning programme developments throughout the province are discussed. Special attention is given to programmes that incorporate technology-based learning tools. Specifically, the purpose of this paper is to broaden the awareness of education professionals regarding home learners, their parent/teachers, and programmes designed to complement the home learning situation. In addition, this review is designed to foster dialogue between education professionals interested in alternative methods to traditional education.

Home Learning Background Information

Leading experts in educational theory have disputed structural components of public schools by criticizing them as being strict, rigid, bureaucratic agencies designed to remove children from active everyday life (Freire, 1985; Gatto, 1993b; Illich, 1971). Holt (1976) explains "the right to control our minds and thoughts is second only to our

fundamental right of life itself. According to Holt, most structured public education displaces the right of children to make decisions about their learning.

Many parents, have encountered negative aspects of their childrens' public education. These can include: tight rigid schedules; standard curricula designed to teach immense quantities of facts; large teacher to student ratios; lack of adequate student performance on standardized tests; and, the loss of creative, explorative activities. In response to the short comings of public education and to satisfy personal needs, many parents have turned to home schooling as an answer (Guterson, 1992). One common premise of families that home school is that learning takes place continually in any action we do, and that when children learn from loving supportive parents they are more apt to develop and grow in their own unique ways (Hern, 1996).

Interestingly, with the greater emergence of educational technological tools and resources, in particular electronic networking systems, home schooling has not only become more popular, but has become more widely accepted throughout the world. According to research recently reported by Odyssey, basic World Wide Web (WWW) usage doubled in 1995, with use of the WWW in homes doubling in the last six months of 1995. Odyssey further estimates WWW infiltration at about 7.5 million households, that is, about eight percent of the U.S. population (Hamilton, 1996).

Resources that connect home schooled students and their learning experiences to a broad base of knowledge is made possible through the development of educational programmes that employ computers in the homes of students and provide electronic support via e-mail. By incorporating these technological tools into and by having a wider variety of resources available to them through Internet based instructional tools, parents are better able to instruct their children.

Global electronic networking has opened doors to numerous students and teachers willing to share information, yet too often this information is misguided or not directed. The purpose of this discussion is to offer parent/teachers and educators knowledge of pertinent home-learning developments available throughout the province of British Columbia that provide exemplary education through electronic media for home schooled students.

Home Learning Curriculum

Rural British Columbians that home school are often faced with the age old problem of resource availability. This problem has begun to be addressed through the emergence of electronic networking pro-

grammes for home-learners. One such programme originated in the Nechako School District #56 as a result of parental requests for assistance with their home schooling efforts. After two years of providing electronic resources for parent/teachers of the district's home schooling programme, The Nechako Electronic Busing Program© (E-Bus) now spans over 11 school districts throughout B.C. with more than 227 learners involved in the programme and over 1200 on a waiting list.

Their programme was recently evaluated by the B.C. Ministry of Education and directed to implement more stringent assessment procedures and plan curricula according to new Integrated Resource Packages. The E-Bus is going through a transition stage in which hardware, software, and technological tools are being updated as an adjustment to the rapid growth of the number of families (Robertson, 1995a).

Enrollment numbers in the E-Bus are dictated by the ministry due to funding available for the programme. School districts throughout B.C. extend recognition of home learners by providing a monetary stipend to districts in which the learners reside (home district). This allows home learners access to school facilities, sports teams, and fine arts events; however, many districts do not willingly or easily extend these benefits to home learners. Nechako's E-Bus extends districts a stipend that is approximately one hundred dollars more than what they would normally receive for home schooled students in order to assure access to school district resources. E-Bus programme guidelines, as explained by principal Ken Robertson (1996), dictate that all applicants must have been home schooled for at least one year prior to application in order to demonstrate commitment to home learning conditions.

Curriculum Materials

The E-Bus provides families with IBM 486 PCs, internal modems, educational software appropriate for the level of children to be schooled (K-10), e-mail accounts, Internet access, and curricula based on provincial guidelines. If there are more than two children per family, or if one learner is at the primary level and others are at intermediate level, more computers are provided. The rule-of-thumb for computer provision is one computer per every two students. According to one of the E-Bus on-line teachers, software is updated and machines are reformatted every six months (Bartsch, 1996). In addition, an on-line instruction packet is available to families that outlines programme goals, software instructions, curricula guidelines, suggestions for teaching strategies, and assessment ideas.

On-line Teacher Resources

To address programme needs, the Nechako School District employs on-line teachers to give assistance, plan curricula, and provide educational resource direction for parent/teachers and students. On-line teachers are at the very heart of the Nechako programme. Four full time and two 0.6 certified teachers assist parents and students in choosing instructional objectives to assure that learners meet the B.C. curriculum guidelines. These teachers not only assist parent/teachers in developing personal learning plans for their students, they also provide resource materials such as books and videos, offer instructional guidance regarding content, and suggest appropriate teaching strategies. On-line teachers also act as mentors or counselors to parent/teachers and learners. These teachers are frequently able to encourage learners to complete certain tasks or inquire about other content areas. In addition, on-line teachers discuss any governmental curriculum changes and directions, help plan thematic integrated units, provide assessment tools, and assist parent/teachers and learners by administering standardized tests for university entrance requirements. Besides these essential support services, on-line teachers are available to discuss theories and research related to education, provide basic technical and software assistance, and offer training in the uses of Internet resources (Robertson, 1995).

Other Home Learning Programmes in British Columbia

Aside from Nechako's E-Bus, other home-learning programmes using electronic resources are emerging throughout the province. These programmes are being supported by such organizations as the Victoria Home Learners Group, Wondertree Foundation for Natural Learning, and the Canadian Home Educators' Association of B.C. (CHEA). The Victoria Home Learners Group is active in connecting families to increase educational opportunities for students. Some connections include, but are not limited to: career internships; professional music opportunities; participation in film documentary events; and in conjunction with the University of Victoria, providing lecture opportunities and conferences conducted by leading home-learning experts.

Wondertree Foundation for Natural Learning directs the Virtual High Learning Community, which is a high school in Vancouver, B.C. founded in 1993 to support teenagers in directing their education. Teens are provided with support for their self-generated learning programmes by mentors hired in the students' various areas of interest. School staff and content mentors provide a variety of resources that include: provision for experiential activities; help in establishing community interactions; assessment of opportunities for work with leading edge information

technologies; and, entrepreneurial direction (Wondertree Foundation for Learning, 1995).

The Canadian Home Educators' Association of B.C., more commonly known as CHEA, was established in 1987 to provide home schooling families legal support regarding issues related to home schooling and the School Act. CHEA became a registered non-profit organization in 1988 with their major goal of representing all home schoolers regardless of religious or philosophical beliefs. Legal assistance and representation, and resources and research regarding home schooling are provided for families. Likewise, fund raising and organization of donational moneys is also handled. Basically, CHEA exists to support families that choose to home school (CHEA, 1996).

Learner & Parent Profiles

There is no one particular or specific profile of a home learner or parent/teacher. In B.C. many families that home school are labeled as un-schoolers, and within this group many different interpretations of un-schooling exist. Some families leave all learning up to the children. For example, when they wake in the morning they decide what to do that day. Activities may include watching television, reading, attending sporting or arts events, or participating in active learning. Basically, these learners individually direct their learning. Other families may guide their children through specific learning tasks that will directly connect to learners' lives. These tasks may involve learners in situations in which mathematical reasoning is required for household budgeting, or problems to be solved using technological skills that require reading and deciphering manufacturer production manuals.

Learning Approaches

As can be imagined, parent/teachers employ a variety of techniques to teach their children. For example, some parents approach schooling in a very structured manner using traditional text books and teaching strategies while others use a less structured curriculum in which programmed materials and technological tools serve as reinforcement of learning contexts. Still other parents structure learners' experiences around what learners determine and technology is utilized in varying amounts to enhance this learning.

Another popular learning framework used by home schoolers is the discovery approach. To illustrate this style, Nichols-White (1996) describes her experience with a mechanical dinosaur "lumbering" through her
is a mother of three children she decided to home school her boys
hopes to help them avoid stereotypical labels of black children.

She began her home schooling strategies by incorporating creative playful situations; however, within her curricula, Nichols-White stressed reading, writing, mathematical, and science process skills. As part of the children's "dinosaur" project their playing involved exploration into physics, electronics, computing, multi-step direction following, cooperative learning, and team building.

Another commonly used teaching practice of home learning groups is the inclusion of children in adult oriented activities. Basic reasoning for this type of strategy is to help learners develop key interpersonal skills of confidence and poise when dealing with adults (Falbel, 1996).

Technological Tools and Connections

Technological tools now offer learners the capacity to open doors of opportunity quicker and wider than ever before. Through Internet links learners can connect to a wide variety of specialists in many different fields. Such connections made by home learners can affect entire family routines. An E-Bus on-line teacher (McCarthy, 1995) shares one instance in which one family held a conference to discuss what they could do to earn money to help supplement their income. During the discussion, the interest of the 13 year old daughter led to the family decision to raise horses. The family chose a particular horse breed that was known to be easy with children, and the daughter accompanied her father to Vancouver to purchase horses. Upon returning home, the daughter checked the Internet for people resources and was able to contact a horse trainer who answered her questions each day on the Internet. The trainer became so interested in the girl's questions that he visited the family for over a week and instructed them in animal training. The daughter now gives riding lessons and the family provides trail rides along with selling horses from their active breeding programme. This family's success was made possible through their willingness to pursue the learner's interest and by valuing information gained and connections made through an electronic medium.

In addition to electronic mail services, home learners frequently use other Internet connections and educational software programmes. WWW links provide home learners with access to B.C.'s current curriculum in the form of Integrated Resource Packages, British Columbia Teachers' Federation (B.C.T.F.) guidelines, and library connections throughout the world. International educational and informational web sites are also available. Many network services provide instruction for writing and research techniques and project information related to any subject matter. Bulletin Boards allow students to interact with professors and other interested parties. Most WWW sites provide relative-

resources. Learners are advised to search for information that has been edited and refereed by professionals in any given field. More stringent guidelines and directives regarding what information goes on to the Internet are being established due to the increasing popularity and abundance of information of electronic media (Black, 1996a).

Home learners that include technological tools in their curriculum also use computer software in the form of simulations, data bases, word processing, graphics, hyper-media, and spread sheets. This basic software provides students with tools to help them invent, construct, present, and communicate their learning. Established simulation and hyper-media computer software, such as Word Munchers, Storybook Weaver, Plato, Typing Tutor, Math Blaster, Encarta, or The Way Things Work, provide information and practice for students using electronic medium rather than traditional textbooks (Black, 1996b).

Conclusion

There is a notable urgency for research of home learning programmes in which questions of programme viability, curriculum appropriateness, and learner comprehension need to be answered. As more families move away from traditional educational settings and choose to home school their children, education professionals will be responsible for training pre-service teachers to work in various home learning programmes. A need exists for collaborative research between university professors, home learners, and school districts to enhance the planning of home schooling curriculum. Documentation and research of and for various current home learning programmes throughout B.C. is also needed. This information would furnish home learners and school districts with current research and field information. Other vital areas related to home schooling for educators to explore are: planning and delivery of parent/teacher and learner workshops related to education and sound teaching practices; teacher training for the variety of increasing alternatives to education; teacher preparation in electronic media and possible curriculum connections between children in public schools and home schooled learners; and, direct involvement with parent/teachers and home learners. Education is quickly accepting alternative education as one of the standards. Home schooling is one alternative to traditional education for families. Educators have the responsibility of not only helping students enrolled in public school situations to become literate citizens, but also assisting home taught students as well.

References

- Bartsch, R. (1996). (personal communication, January 1996)
- Black, K.M. (1994, March). *Improved science content for pre-service teachers: modeling of teaching strategies based on current science education reform literature*. Paper presented at Annual Meeting of the National Association for Research in Science Teaching, Anaheim, CA.
- Black, K.M. (1996a). *The Importance of Educating Pre-Service Teachers in the Uses of Technology for the Global Classroom*. Manuscript submitted for publication.
- Black, K.M. (1996b). An examination of an alternative approach to teaching science content courses for pre-service elementary education students. In revision, *Journal of Research in Science Teaching*.
- CHEA. (1996). CHEA's History. *The Canadian Home Educators' Association of B.C.* (Brochure)
- Falbel, A. (1996). Learning? Yes, of course. Education? No, thanks. In Matt Hern (Eds.), *Deschooling Our Lives*. pp 64-68. Gabriola Island, Canada: New Society Publishers.
- Freire, P. (1985). *The Politics of Education*. South Hadley, MA: Bergin and Garvey.
- Gatto, J.T. (1992a). *Dumbing Us Down*. Philadelphia, PA: New Society Publishers.
- Gatto, J.T. (1993b). *The Exhausted School*. New York: The Odysseus Group.
- Guterson, D. (1992). *Family matters, why home schooling makes sense*. New York: Harcourt, Brace, Jovanovich .
- Hamilton, D. (1996). New Resources Letter #18 [1 paragraph]. UVE-DUC-L [Bulletin Board]. Available E-mail: Uveduc-
l@uvvm.uvic.ca.
- Hern, M. (1996). Kids, community, and self-design: an introduction. In Matt Hern (Ed.) *Deschooling Our Lives*. (pp. 1-7). Philadelphia, P.A.: New Society Publishers.
- Holt, J. (1976). *Instead of Education*. Boston, MA: Holt Associates.
- Illich, I. (1971). *Deschooling Society*. New York: Harper.
- Nichols-White, D. (1996). Dinosaur home school. In Matt Hern (Ed.) *Deschooling Our Lives*. (pp. 72-75). Philadelphia, P.A.: New Society Publishers.

Newsletter. Available Internet: The Nechako Electronic Busing Program©, Vanderhoof, B.C., CA. Electronic mail document, October 1995.

Robertson, K. (1996). *The Nechako Electronic Busing Program© Newsletter*. Available Internet: The Nechako Electronic Busing Program©, Vanderhoof, B.C., CA. Electronic mail document, January 1996.

The Nechako Electronic Busing Program© (1995b). Robertson, K. *Message from the Nechako Electronic Busing Program©*. (Brochure). Robertson, K.: Author.

Wondertree Foundation for Learning. (1995). *Learning a Living*. Wondertree LearningWare Inc. Vancouver, B.C. Electronic Home Learning Programmes in British Columbia

Precontemplating P.E.?

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Regular physical activity is recognized as a primary source of physiological benefit for adolescents. The purpose of the research is to enhance our knowledge of strategies and approaches which are appropriate for promoting active living in Canadian youth.

Introduction

Physical inactivity has been identified as a major risk factor for all causes of mortality and morbidity (Blair, Brill and Barlow, 1994). Regular physical activity is recognized as a primary source of physiological benefit for adolescents, including but not limited to, cardiovascular fitness, increased HDL-cholesterol and weight control (Sallis and Patrick, 1995). Further, physical activity has been associated with psychological benefits and perceptions of well-being (Landers and Petruzzello, 1994). Psychologically, active living provides opportunities for social development and fosters development of a healthy identity (Busser, Hyams and Carruthers, 1995). Adherence to an active lifestyle is necessary to experience physiological and psychological benefits. We know that activity patterns in adulthood are positively related to participation levels in adolescence (Scott and Willits, 1989). While young people between the ages of 16-24 are the most vigorously active segment of the population (King et al., 1992), it is also a stage in the life span when young people are more likely to reduce their rates of exercise (Anderssen et al., 1996). Moreover, because lifestyle behaviours cluster, inactive youth are likely to be engaging in other risk behaviours (Stephens and Craig, 1990).

As a school subject, physical education can play an important role in promoting the well-being of students (Johns, 1995). Based on the strength of a convincing epidemiological data base, a consensus statement recommended regular physical activity for youths (Sallis and Patrick, 1995). Public and political opinion support this notion. Janzen (1995) reports that the majority of Canadians believe that physical education is as important or more important than other core subjects. Yet, in the public secondary school system, physical education becomes an elective for students in grades 11 and 12. A drastic reduction in physical activity levels among youth (particularly female youth) parallel this curriculum option (Canada Fitness Survey, 1983) when adolescence is

characterized by physical, emotional, and social upheaval (Chiogioji and Taylor, 1988).

Campbell (1994) has noted that the school system offers an ideal context in which to promote active living. To date, however, educational and media campaigns designed to increase the proportion of individuals interested in initiating and maintaining physical activity have yielded poor results (Knapp, 1988). In order to involve young people in physical activity, Kincey, Amir Gillespie et al., (1993) recommend addressing psychological issues, as well as financial and accessibility obstacles. A psychological model, which has been demonstrated to be applicable for a variety of health promotion behaviours among adults, is the Stages of Change model (Prochaska, DiClemente and Norcross, 1992). This model has been evaluated with health related behaviours such as smoking, suntanning, and alcohol use. Research in exercise adoption and maintenance has demonstrated that the underlying constructs of the Stage model could be generalized to exercise behaviour. Yet there has been limited application of this model with adolescents and no research has been conducted with physical activity and stages of change among youth. This paper will describe a research proposal to the Canadian Fitness and Lifestyle Research Institute following a successful letter of intent submission, as well as to the Faculty of Education Renewal Fund. The purpose of the research is to enhance our knowledge of strategies and approaches that may be appropriate for promoting active living in Canadian youth.

Statement of the Problem

Youth inactivity is an educational and a public health issue. Neglecting to address the poor rates of physical activity, especially in the public school system, will have profound implications for the health of the population. Promoting active living among youth requires an exploration and understanding of the psycho-social barriers that preclude participation in both elective physical education classes as well as in community programs. For the most part, physical activity programs and curricula have been insensitive to the needs of at-risk populations. Currently, physical education curricula and community activities are designed around the assumption that 'one size fits all'. Programs are not tailored to accommodate an individual's readiness to change or other psycho-social, cultural, and gender determinants of exercise. The importance of exploring the adolescent years in order to develop effective interventions for youth in different stages of participation in physical activity has been noted (Marcus, 1995). If distinct and identifiable stages of change are present in youth, strategies and processes to minimize psycho-social and cultural barriers can be developed.

Recommendations for physical education curriculum development, teacher training, and community programming would need to address these stages of change to facilitate participation in active living.

Objectives of the Study

The purpose of this research is to enhance our knowledge of strategies and approaches to effectively promote active living in Canadian youth. The four objectives are:

1. To determine if the Stages of Change theory is valid as an explanatory model for active living in high-school aged youth.
2. To identify the processes of change relevant for the adolescent population with respect to physical activity.
3. To describe the profile of physical activity patterns and related lifestyle behaviours among grade 11-12 public high-school students.
4. To provide recommendations for curriculum and community programs to enhance physical activity/active living in youth.

Review of the Literature

The Determinants of Physical Activity

Physical activity among youth is important, not only because of its concurrent relationships with risk factors, but also because of its potential to influence lifelong commitment to active living (Simons-Morton et al., 1990). There exists some evidence to suggest that health behaviours cluster in adolescents (Bailey, 1992). Factors such as regular exercise, adequate sleep, healthy eating, and attention to safety have been found to be correlated in youth (Donovan et al., 1991). Winnail et al., (1995) found exercising five to seven times a week to have a protective effect against the use of cigarettes, marijuana, and smokeless tobacco among white male high-school youth. Conversely, these types of relationships also occur with unhealthy behaviours. Lytle et al., (1995) found students who smoked and had poor diets were also physically inactive. Students who were at higher risk on one of these behaviours were also at higher risk on the others and these associations strengthened over time. However, the work of Aaron et al., (1995) found that, with the exception of cigarette smoking in females, physical activity in youth did not reduce the incidence of initiating adverse health behaviours, particularly substance use and weapon carrying. Physically active males were significantly more likely to consume alcohol than less active a finding also replicated by Rainey et al., (1996), and Faulkner

and Slattery (1990). Jessor (1991) also found consistent negative correlations between health compromising behaviours (smoking, substance use) and health-maintaining behaviours (regular exercise, healthy eating, adequate sleep) in a cross sectional study of white American youth. The Rainey et al., (1996) study reported that gender and race influenced physical activity levels in high-school students; white males were the most active, and black females the most sedentary. Anderssen and colleagues (1996) found that the physical activity score was greater in those with higher average educational attainment. In a comprehensive review of the determinants of physical activity, Rohm Young and King (1995) found individuals with lower income and education levels, and women overall, engaged in less activity in their leisure time. The researchers caution that these associations may differ depending on the type of physical activity that is being evaluated. Indeed, the determinants of the risk profile in different population subgroups are yet to be delineated (Rohm Young and King, 1995).

Chernysh and Crossman (1994) noted that the non participation bias in physical activity has become "an undeniable collective trend" (p. 21). These authors surveyed students in grade nine and ten about their satisfaction with physical education experiences. Almost half (46%) indicated that they would not enroll in physical education in coming years citing poor athletic ability, grading of their athletic ability, and a preference for other subjects. Other research has suggested similar findings. Previous negative experiences in physical education classes (characterized by psychological, social, and contextual variables) undeniably influences students' decisions to not enroll in elective physical education (Carlson, 1995). Dislike of the subject has been attributed to boredom (Fox and Biddle, 1988), teacher behaviour, the competitive atmosphere, and perceived lack of control or choice (Carlson, 1994). Page and Tucker (1994) found inactive adolescents to experience greater psychosocial discomfort (i.e., loneliness, shyness, and hopelessness) than active youth, possibly due to differences in self-esteem. Stonecipher (1995) found lack of parental and peer encouragement to be significant barriers to activity for females, as well as fatigue and lack of time and motivation. Self-efficacy has also been found to be an important component of physical activity participation (Rohm Young and King, 1995). Finally, Mandigo and Couture (1996) found that 'having fun' in physical education classes was significantly correlated with skill, boredom, intrinsic motivation, locus of control, quality of teacher feedback and perceived competence. It would appear that both intrinsic and extrinsic factors can combine to influence the satisfaction students have in physical education, and hence, their interest in pursuing the subject. Understanding the understanding of these factors will enable teachers "...to

go beyond what is obvious – that some students hate gym” (Carlson, 1995, 475) and, most probably, lifelong physical activity (Carroll, Hostetter and Eastman, 1996).

The Stages of Change

A psychological model that has been demonstrated to be applicable for a variety of health promotion behaviours among adults is the Stages of Change model (Prochaska, DiClemente and Norcross, 1992). This model applied to exercise behaviour, facilitates a shift away from a reliance on predictive models and towards the use of process models to understand exercise adoption and maintenance. The Stages of Change model suggests that individuals attempting to change behaviour move through a sequence of stages of change: precontemplation (not intending to make changes); contemplation (considering a change); preparation (making small changes); action (actively engaging in the new behaviour); and maintenance (sustaining the change over time). It is posited that an individual can progress through these stages over time and it has been demonstrated that helping people progress just one stage, can double the chances of successful action in the near future (DiClemente, Prochaska, Fairhurst et al., 1991).

Processes in the Stages of Change

Some research has focused on the psychological processes that individuals use to move from one stage to another (DiClemente et al., 1991). Prochaska et al. (1992) have identified ten processes of change, grouped into five experiential processes: consciousness raising; dramatic relief; environmental reevaluation; and self-reevaluation, and five behavioural processes: counterconditioning; helping relationships; reinforcement management; stimulus control; and self-liberation. These processes have been shown to be related to the stage of change (Prochaska and DiClemente, 1983). It has been shown that process-oriented interventions targeted to an individual's specific stage of change may accelerate progress towards the stages of action and maintenance (DiClemente et al., 1991). Interventions that have been tailored to these processes have successfully increased the adoption of exercise and improved maintenance of physical activity (Calfas et al., 1996).

Research on Stages of Change with adolescent smoking behaviour suggests that there is substantially more movement among stages than with adults (Pallonen et al., 1990). To date, only one study has validated the stages of change with physical activity in young adults (Wyse et al., 1995). However, it is not known if youth rely on the same processes

with exercise behaviour as adults. As such, an instrument to

measure the processes of change has not been validated, nor has the model been used to develop interventions to initiate and maintain physical activity in adolescents.

Decision Balance

The Stages of Change model also relates to the way in which individuals make decisions about adopting exercise behaviour. Based on a decision-making model, a set of pros and cons of changing have been identified (Prochaska, 1991). In both smoking cessation and exercise adoption research, the findings are consistent: the pros and cons are significantly associated with stage of exercise adoption. Persons in action and maintenance stages cite more positive reasons to exercise. Persons in precontemplation cite more reasons not to change (cons). The balance of cons to pros shifts as an individual progresses, with preparation being the pivotal stage (Marcus, Rakowski et al., 1992). These research results suggest movement through the stages can be facilitated with interventions that increase the pros (e.g., feeling good about oneself) and decrease the cons (e.g., too tired) of exercise. It appears that knowledge of a participant's pro and con beliefs, in addition to the social, behavioural, and environmental influences, can enhance programmers' ability to provide effective exercise interventions. To date, the way adolescents make these decisions (pros and cons) has not been examined.

Summary

The importance of physical activity to a healthy lifestyle is now well recognized. The myriad of factors that can contribute to inactive behaviour is also growing. What remains unanswered, and is at the heart of this research, are the clues to promoting active living, particularly in the precarious ages of the teen age years. The presence of stages of change, the processes of change, decision balance, and other determinants of exercise are not well understood in the adolescent population. The Stages of Change theory offers a promising lens to examining and understanding not only inactivity, but also to promoting activity.

Research Design

This multi-method case study design will use a cross-sectional survey and focus groups as data collection instruments in the public school setting. The survey will provide an inventory of physical activity patterns (in-school and extra-curricular) and risk behaviours (tobacco and alcohol use). It will also examine their relationship to psycho-social and demographic (self-efficacy, self-esteem, physical self-perception, socioeconomic status, gender) variables. "Career and Personal Planning"

classrooms will be randomly selected from grades 11 and 12 in the Greater Victoria area (N=3,471). The representativeness of the sample should make the findings generalizable to the greater Canadian youth population in similar cities and beyond. Students will be given the opportunity to answer the survey during class time. This survey combines questions from valid and reliable instruments previously tested and used in the literature: The Leisure Time Physical Activity Questionnaire (Godin and Shephard, 1985); the Physical Self-Perception Profile (Fox and Corbin, 1989); the Stages of Exercise Behaviour Change Scale (Marcus and Simkin, 1993); Self-Efficacy for Exercise Scale (Marcus, Rossi, Selby et al., 1992b); Decision-Balance (Marcus, Rakowski and Rossi, 1992); Processes of Change for Exercise (Marcus, Rossi, Selby et al., 1992a); Tobacco and Alcohol Use (Smart, 1985); Self-Esteem (King and Coles, 1992); and socioeconomic status/demographic data from the Adolescent Health Survey (1993).

Responses from the survey will serve as the basis for stratified sampling of focus group participants. Students will be classified into high, medium, and low categories of physical activity patterns. Gender and socioeconomic status will be used to make focus groups as homogeneous as possible. The qualitative portion of this case study follows an heuristic orientational inquiry (Patton, 1990). The focus groups will use heuristic methods oriented from a Stages of Change perspective. From the outset, orientational inquiry acknowledges and makes explicit a certain theoretical perspective or framework of the researcher that guides the inquiry. The theory orients the researchers to determine and isolate important concepts to observe and question, and to interpret findings from within the framework from which they are working.

It is anticipated that youths would be more open and candid in their responses if the group is facilitated by a peer rather than an adult (Zammit and Goldberg, 1995). Youths who volunteer (for an honorarium of approximately \$210.00 each) to serve as focus group facilitators will be trained by the researchers to lead the focus group participants through a discussion following a semi-structured interview schedule. An adult observer will also attend each focus group for safety purposes and to record field notes. Focus group discussions will be tape recorded and transcribed for content and thematic analysis with the assistance of the NUD.IST qualitative software, a code-based theory builder (Weitzman and Miles, 1995). The focus groups are designed to enhance specificity of the quantitative findings by exploring in greater depth the survey responses concerning psycho-social determinants and patterns of physical activity. Most importantly, focus group data will help to determine if stages of change are present in this population and what

References

- Aaron, D.J., Dearwater, S.R., Anderson, R., Olsen, T., Kriska, A.M., and Laporte, R.E. (1995). Physical activity and the initiation of high-risk behaviors in adolescents. *Medicine and Science in Sports and Exercise*, 27, 1639-1645.
- Adolescent Health Survey, A Project of the McCreary Centre Society.* (1993). Richmond, B.C.: New Leaf Computer.
- Anderssen, N., Jacobs, D.R., Sidney, S., Bild, D.E., Sternfeld, B., Slattery, M.L., and Hannan, P. (1996). Change and secular trends in physical activity patterns in young adults: a seven year longitudinal follow-up in the Coronary Artery Risk Development in Young Adults Study. *American Journal of Epidemiology*, 143 (4), 351-362.
- Bailey, S.L. (1992). Adolescents' multisubstance use patterns: the role of heavy alcohol and cigarette use. *American Journal of Public Health*, 82, 1220-1224.
- Blair, S., Brill, P., and Barlow, C. (1994). Physical activity and disease prevention. In H.A. Quinney, L. Gauvin and A.E.T. Wall (eds.), *Toward Active Living*, pages 25-32. Windsor, ONT: Human Kinetics.
- Brooks, C. (1988). A causal modeling analysis of sociodemographics and moderate to vigorous physical activity behavior of American adults. *Research Quarterly for Exercise and Sport*, 59, 328-338.
- Busser, J.A., Hyams, A.L., and Carruthers, C.P. (1995). Differences in adolescent activity participation by gender, grade and race. *Research Quarterly for Exercise and Sport*, March, supplement, A-44.
- Calfas, K.J., Sallis, J.F., Lovato, C.Y. and Campbell, J. (1994). Physical activity and its determinants before and after college graduation. *Medicine, Exercise, Nutrition and Health*, 3, 323-334.
- Carlson, T.B. (1995). We hate gym: student alienation from physical education. *Journal of Teaching In Physical Education*, 14, 467-477.
- Carroll, D., Hostetter, R., and Eastman, W. (1996). The relationship between high school physical education enrollment and leisure time physical activity. *Avante* 2 (1), 69 - 78.
- Campbell, W. (1994). The school system and active living programs for children and youth. In H.A. Quinney, L. Gauvin and T. Wall (eds.), *Toward Active Living*, pages 141-146. Windsor, ONT: Human Kinetics.
- Canada Fitness Survey. (1983). *Fitness and Lifestyle in Canada*. Ottawa: Fitness and Amateur Sport.

- Chernysh, K., and Crossman, J. (1994). The perceptions of students regarding grading in physical education. *Journal of Physical Education, Recreation and Dance*, 60 (6), 16.
- Chiogioji, E. and Taylor, J. (1988). Early adolescence: a critical period for physical education. *Journal of Physical Education, Recreation and Dance*, 60 (6), 16.
- DiClemente, C.C., Prochaska J.O., Fairhurst, S.K., Velicer, W., Valesques, M. and Rossi, J. (1991). The process of smoking cessation: an analysis of precontemplation, contemplation and preparation Stages of Change. *Journal of Consulting and Clinical Psychology*, 59, 295-304.
- Donovan, J.Jessor, R., and Costa, F. (1991). Adolescent health behavior and conventionality - unconventionality: an extension of problem-behavior theory. *Health Psychology*, 10, 52-61.
- Faulkner, R. and Slattery, C. (1990). The relationship of physical activity to alcohol consumption in youth 15-16 years of age. *Canadian Journal of Public Health*, 81, 168-169.
- Fox, K., and Biddle, S. (1988). The child's perspective in physical education: part 2. Children's participation motives. *British Journal of Physical Education*, 19, 79-82.
- Fox, K. and Corbin, C. (1989). The physical self-perception profile: development and preliminary validation. *Journal of Sport and Exercise Psychology*, 11, 408-430.
- Godin, G., and Shephard, R. (1985). A simple method to assess exercise behavior in the community. *Canadian Journal of Applied Sport Science*, 10 (3), 141-146.
- Janzen, H. (1995). The status of physical education in Canadian public schools. *Canadian Association for Health, Physical Education, Recreation and Dance Journal*, 61 (3), 5-9.
- Jessor, R. (1991). Risk behavior in adolescence: a psychological framework for understanding and action. *Journal of Adolescent Health*, 12, 597-605.
- Johns, D. (1995). Moving to the margins: physical education another disposable program? *Canadian Association for Health, Physical Education, Recreation and Dance Journal*, 61 (2), 15-18.
- Kincey, J., Amir, Z., Gillespie, B., Carleton, E. and Theaker, T. (1993). A study of self-esteem, motivation and perceived barriers to participation in sport and exercise among secondary school publics. *Health Education Journal*, 52 (4), 241-245.
- A., Blair, S., Bild, D., Dishman, R., Dubbert, P., Marcus, B., Stridge, N., Paffenbarger, R., Powell, K. and Yaeger, K. (1992).

- Determinants of physical activity and interventions in adults. *Medicine and Science in Sports and Exercise*, 24, S221-S236.
- King, A. and Coles, B. (1992). The WHO Cross National Study of Health Behavior of School Children, 1989-90. *The Health of Canada's Youth*. Ottawa: Minister of Supplies and Services.
- Knapp, D. (1988). Behavioral management techniques and exercise promotion. In R. Dishman (ed.), *Exercise Adherence*, pp. 203-235. Champaign, ILL: Human Kinetics.
- Landers, D., and Petruzzello, S. (1994). The effectiveness of exercise and physical activity in reducing anxiety and reactivity to psychosocial stressors. In H.A. Quinney, L. Gauvin and A.E.T. Wall (eds.), *Toward Active Living*, pp. 77-82. Windsor, ONT: Human Kinetics.
- Lytle, L., Kelder, S., Perry, C. and Kleep, K. (1995). Covariance of adolescent health behaviors: the class of 1989 study. *Health Education Research*, 10 (2), 133-146.
- Mandigo, J.L., and Couture, R.T. (1996). An overview of the components of fun in physical education, organized sport and physical activity programs. *Avante* 2 (3), 56 - 72.
- Marcus, B., Simkin, L. Rossi, J., Pinto B. (1996). Longitudinal shifts in employees' stages and process of exercise behavior change. *American Journal of Health Promotion*, 10 (3), 195-200.
- Marcus, B. (1995). Exercise behavior and strategies for intervention. *Research Quarterly for Exercise and Sport*, 66 (4), 319-323.
- Marcus, B., Rakowski, W., and Rossi, J. (1992). Assessing motivational readiness and decision-making for exercise. *Health Psychology*, 11, 257-261.
- Marcus, B., Rossi, J., Selby, V., Niaura, R. and Abrams, D. (1992). Self-efficacy and the stages of exercise behavior change. *Research Quarterly for Exercise and Sport*, 63, 60-66.
- Page, R. and Tucker, L. (1994). Psychosocial discomfort and exercise frequency: an epidemiological study of adolescents. *Adolescence*, 29 (113), 183-191.
- Pallonen, U., Murray, D., Schmid, L., Pirie, P. and Luepker, R. 1990). Patterns of self-initiated smoking cessation among young adults. *Health Psychology*, 9 (4), 418-426.
- Prochaska, J. (1991). Assessing how people change. *Cancer*, 67, 805-807.
- Prochaska, J. and DiClemente, C. (1983). Stages and process of self-change of smoking: Toward an integrative model of change.

- Journal of Consulting and Clinical Psychology*, 51, 390-395.
- Prochaska, J., DiClemente, C., and Norcross, J. (1992). In search of how people change. *American Psychologist*, 47 (9), 110-1114.
- Rainey, C., McKeown, R., Sargent R. and Valois, R. (1996). Patterns of tobacco and alcohol use among sedentary, exercising, nonathletic and athletic youth. *Journal of School Health*, 66 (1), 27-32.
- Rohm Young, D. and King, A.C. (1995). Exercise adherence: determinants of physical activity and applications of health behavior change theories. *Medicine, Exercise, Nutrition and Health*, 4, 335-348.
- Sallis, J., and Patrick, K. (1995). A consensus on physical activity guidelines for adolescents. *Canadian Association for Health, Physical Education, Recreation and Dance*, 61 (1), 38.
- Scott, D., and Willits, F.K. (1989). Adolescent and adult leisure patterns: A 37 year follow-up study. *Leisure Sciences*, 11 (4), 323-335.
- Simons-Morton, B., O'Hara, N., Parcel, G., Wei Hunang, I., Baranowski, T., and Wilson, B. (1990). Children's frequency of participation in moderate to vigorous physical activities. *Research Quarterly for Exercise and Sport*, 61 (4), 307-314.
- Smart, R. (1985). *Guidelines for the Development of Canadian Surveys of Alcohol and Drug Use Among Students*. Ottawa: Health and Welfare Canada.
- Stephens, T., and Craig, C. (1990). *The Well Being of Canadians*. Ottawa: CFLRI.
- Stonecipher, L. (1995). Perceived barriers and physical activity: differences in groups defined by gender and activity level. *Research Quarterly for Exercise and Sport*, 66, A-44.
- Teague, M. (1988). vigorous physical activity for adults: a descriptive epidemiology. *Journal of Physical Education, Recreation and Dance*, 59, 47-49.
- Weitzman, E. and Miles, M. (1995). *Software Sourcebook: Computer Programs for Qualitative Data Analysis*. Thousand Oaks, CA: Sage Publications.
- Winnail, S., Valois, R., McKeown, R., Sanders, R. and Pate, R. (1995). Relationship between physical activity level, and cigarette, smokeless tobacco and marijuana use among public high school adolescents. *Journal of School Health*, 65 (10), 438-442.
- Zammit, S. and Goldberg, M. (1995). *Profiles of Youth Well Being*. Victoria: Faculty of Human and Social Development, University of

A Comparison of Cross-Linguistic Genre Preferences

Robert J. Anthony and Hitomi Harama

This paper examines report writing by students using genre feature analysis. The relationship between writing, performance, developmental stage, and instructional context is considered.

Purpose

Robert Kaplan (1966, 1987) has proposed a notion of contrastive rhetoric as a hypothesis to account for some unusual and persistent patterns in ESL students' writing. He intuitively felt that the unconventional variation observed in ESL writing reflected inherent differences in conceptualizing the organization of writing which arise from cultural and linguistic differences across languages. Research in the field has focused on exploring that basic hypothesis. The current research explores cross-linguistic differences in the selection of preferred text by oriental and Canadian grade 10 students.

This exploratory study which examines some features of contrastive genre between English, Japanese, and Chinese, has three major purposes. The first was to explore the possibility of developing a new methodology that would bypass the traditional and laborious linguistic analysis of texts and still produce reliable data about contrastive genre. The procedure used in this study sought to determine the efficacy of assessing students' rhetorical intuitions by using a rating scale procedure. Second, in the course of producing experimental passages, a number of textual features previously suggested in the literature as significant features of expository texts were embedded in the test passages. Participants in this research were asked to report on the reasons for their preferences, and in this way, reflect their intuitive sensitivity to these embedded features. Third, this research tests Kaplan's hypothesis by comparing the preferences of oriental students with the responses of their Canadian peers. The comparison of responses between oriental and Canadian students to the experimental passages will reflect on the relevant features for cross-linguistic comparison of genre.

Background

The collective reference to oriental languages is troublesome in this context and requires some explanation. This study particularly focuses on Japanese and Chinese students. These languages are very different from one another. For example at an elementary syntactic level Japanese is characterized as an SOV (subject+object+verb) language while Chinese is SVO (subject+verb+object). Moreover, the writing systems used in these languages are quite different. Although Chinese characters, ideographs, have been adopted into Japanese, the Japanese language also has hiragana and katakana, phonograms, which have no counterpart in the Chinese system. Despite these significant differences, Japanese, Chinese, Korean, Taiwanese, and Thai have all been collectively referred to in the literature as oriental languages (Hinds 1982). Thus the use of the term oriental to refer to the range of cultures of the participants in this research is merely in keeping with an established practice in the literature.

There exists some basis for the use of this collective term. Historically, Chinese has had an influence on all the oriental cultures somewhat analogous to the influence of Greek language and culture on western Europe. Furthermore, Cai (1993), Connor & MacCagg (1983), Hinds (1980, 1982, 1987), Kamimura & Oi (1994), Kaplan (1966), Liebman-Kleine (1987), Lee & Scarcella (1992), and Mohan (1986) have observed that some of the unconventional features of writing in English are commonly exhibited by Japanese, Chinese, Korean and other oriental EFL learners. Therefore, despite the unsatisfactory over-generalization of the collective term, oriental languages, it will be used in this report in keeping with the convention of the existing literature.

In this report the terms *rhetoric* and *contrastive rhetoric* are used rather than the more contemporary terms, *genre* and *contrastive genre*. The reason for this is merely to remain consistent with the terminology in the extant literature on the topic. Rhetoric and genre are not synonymous but a careful analysis of the relationship of these terms in the related literature is beyond the scope of this report. However, the theoretical underpinnings of this research arise directly from the contemporary study of genre (Martin, 1991; Cope and Kalantzis, 1993). It is this genrist perspective which dominates the use of the historical term, rhetoric.

Methodology

Five different passages about earthquakes were composed. During the development of these passages care was taken to insure that they were equivalent. That is, each included about the same number of earth-

quake facts. The length and reading level were also controlled. However, each passage was designed to manifest different rhetorical features. The experimental passage features are presented in *Figure 1* below.

1	2	3	4	5
explicitly marked sequence organization	non-expository, informational story	stack of information with no explicit cohesive markers	oblique introduction followed by explicit cause-effect organization	ki-shoo-ten-ketsu traditional oriental pattern
294 words	274 words	252 words	268 words	277 words
20 sentences	22 sentences	19 sentences	19 sentences	22 sentences
7.6 Flesch grade equivalent	7.0 Flesch grade equivalent	8.5 Flesch grade equivalent	7.6 Flesch grade equivalent	8.1 Flesch grade equivalent

Figure 1. Test passage characteristics

There are three main elements represented in the five passages. Passages one, three, and four generally reflect the expository genre and vary in terms of some well-formedness conventions. Passage one is overtly marked for sequential cohesion while passage three lacks any explicit cohesion. Paragraphs two and three in passage four reflect a conventional cause-effect pattern, but the opening paragraph is obliquely connected only by topic. These elements, cohesive markers and closely tied connection between paragraphs are commonly taught elements in expository writing and have been noted as common writing faults in ESL writers (Goldman & Murray, 1992).

Passage two is not expository but rather reflects a personal recount genre which includes reference to earthquakes. Passage five represents a traditional oriental rhetorical pattern, termed *ki-shoo-ten-ketsu* in Japanese. It is quite distinct from any of the conventional genre taught in Canadian schools. This organizational pattern is a major component of writing instruction in Japan, China, and elsewhere in the orient. *Ki-shoo-ten-ketsu* has four elements:

1. A setting out of the topic,
2. An expansion of the topic with elaboration and details,
3. A shift to a topic-relevant issue, often a personal issue, and
4. Inclusion with some kind of implication or speculation.

While the terms used to describe this traditional pattern are similar to the terms used in English composition, the underlying notions are quite distinct.

Data was collected from seven ESL participants and a class of grade ten Canadian students. Each participant was asked to read the five experimental passages and to rank them in order from the "best" (1) to the "least best" (5). The ESL participants were interviewed and asked to explain their ranking. Their comments were recorded. The Canadian students were asked to participate in groups of three. Each group was requested to undertake the ranking and then to provide three reasons for each separate rank on a response sheet. A summary of the rankings from all participants is presented in **Table 1**.

NAME ¹	PASSAGE	PASSAGE	PASSAGE	PASSAGE	PASSAGE
	1	2	3	4	5
J1	3	4	2	5	1
J2	4	5	2	3	1
H1	1	5	3	4	2
H2	3	2	5	4	1
T1	2	5	3	4	1
T3	5	4	2	3	1
T4	4	2	5	3	1
sum of ranks	22	26	22	26	8
C1	2	1	4	3	5
C2	4	1	5	2	3
C3	2	5	3	1	4
C4	3	5	4	1	2
C5	4	1	2	5	3
C6	2	1	5	4	3
C7	2	5	4	1	3
C8	2	5	1	3	4
sum of ranks	21	24	28	20	27

Table 1. Summary of rankings

¹J indicates a student from Japan; H, Hong Kong and T, Taiwan. All Canadian students speak English as a first language.

Discussion

A preliminary analysis of these results reveals two distinctive patterns. First, the sum of ranks for both groups is similar for all but passage five. The Oriental group selected this passage as clearly the best. This is the passage which was constructed so as to represent the traditional ki-shoo-ten ketsu pattern. None of the Canadian students chose passage five as the best passage. The mean ranking of passage five for the oriental group is 1.1, while the mean ranking for the Canadian group is 3.4. Secondly, the pattern of preference for the other four passages reveals great heterogeneity. This is most evident in the rankings by the Canadian students. All five ranks are assigned to each of the passages 1-4. What is particularly striking about this heterogeneity is that while some students value a feature positively, others value the same feature negatively. Furthermore, students may give a passage a high ranking but with a negative comment or a low ranking with a positive comment. For example:

Passage 1

- C1 rank 2 *a lot of true facts*
 C7 rank 2 *wasn't good because it didn't explain things well ...*
 C2 rank 4 *it was bad because it was so confusing and boring*
 C5 rank 4 *not as good as the top 3 ... liked it because it tells about what causes an earthquake*

Passage 3

- C5 rank 2 *it was good because it had good numerical facts keeping your attention, also had a bit of a story to it*
 C4 rank 4 *it was too factual on the same topic. It has too much info I didn't understand*

The diversity of rankings suggests that the Canadian students are quite uncertain about the conventional features of an informational report. This is most apparent in the rankings for passage two, where half of the Canadian participants ranked this passage highest and half ranked it lowest.

Passage 2

- C1 rank 1 *thoughtful and kept you interested with a story*
 C6 rank 1 *more realistic in its wording ... less factual ... fun to read*
 C7 rank 5 *didn't say anything about an earthquake ... more like a story*
 k 5 *unresearched ... it was too much like a story*

This divergence of responses to passage two was not anticipated. Both the ESL teacher and the English teacher reported that they taught students the difference between story and informational writing. Neither of the teachers had any hesitation in identifying passage two as an unconventional form for an informational report. However, since half of the Canadian participants selected the narrative as the best report, it raises questions about their understanding of the genre features and the context for an informational report. At this point it is not clear what features underlay this polarity in rankings. Initial analysis has examined instructional differences and gender differences as possible explanations and has discounted both.

The rankings for passage five reflected a contrast between the oriental ESL students and the Canadian students. The oriental students ranked the passage high.

J2 rank 1 *makes me to understand about earthquakes very clearly*

T3 rank 1 *has an example can understand clear because of first sentence*

In contrast, the Canadian students' mean ranking for this passage was even lower than the non-expository passage two. Selected comments reflect this negative reaction to passage five.

C3 rank 4 *mostly about feelings not facts*

C8 rank 4 *doesn't relate to the topic ... not very clear*

The divergence of opinions about passage five was anticipated in the study. It appears that even in translation and approximation to *ki-shooten-ketsu*, passage five was the preferred rhetorical pattern for oriental language learners. What is particularly interesting is that the oriental students identified passage five as being *most clear* and *easy to understand*. There was no indication that the reference to "anger" in 'ten' (the third paragraph of passage five), which shows the shift from a main topic, "earthquake", represents any sort of digression. Yet, the Canadian students made several references to apparent digression and being off topic. The ESL teacher remarked that, in her teaching, she had stressed keeping to one topic because other teachers had complained to her about oriental students wandering off-topic. It can be noted that from the perspective of the ESL teacher and the Canadian students there is something off-topic in passage five; while for the oriental students, this passage is focused on a single topic and is coherent. It seems that instructional advice such as, stay to one topic, does not help ESL students write in a more western way. They think the pattern used in passage five is coherently tied to one topic. The contrast in perspectives between Canadians and oriental ESL students suggests that a genre-approach to writing instruction could provide an unambiguous

analytic framework and vocabulary that could clarify the conventional elements required in exposition.

Conclusion

The use of a direct ranking technique resulted in the identification of a cross-linguistic genre difference. While this exploratory study has revealed areas for possible revision to the technique, the basic efficacy of the methodology has been confirmed. Recognition of the ki-shoo-ten ketsu pattern by oriental students was strong.

Further revision to the experimental passages needs to be considered in light of the inconsistency of response related to passages one, three, and four. The absence of any response pattern may suggest that the genre features embedded in these passages are either not overtly familiar to the students or that the expression of these patterns in the test passages is too oblique for recognition.

References

- Cai, C. (1993, March). *Beyond "bad writing": Teaching English composition to Chinese ESL students*. Paper presented at the annual meeting of the Conference on College composition and Communication, San Diego, CA
- Cope, B. & Kalantzis, M. (1993). Introduction: How a genre approach to literacy can transform the way writing is taught. In B. Cope & M. Kalantzis (Eds.) *The powers of literacy: A genre approach to teaching writing* (pp. 1-21). The Falmer Press, London/Bristol: PA
- Cope, B. & Kalantzis, M. (1993). The power of literacy and the literacy of power. In B. Cope & M. Kalantzis (Eds.) *The powers of literacy: A genre approach to teaching writing* (pp. 63-89). The Falmer Press, London/Bristol: PA
- Goldman, S.R. & Murray, J.D. (1992). Knowledge of connectors as cohesion devices in text: A comparative study of native English and English-as-a-Second-Language speakers. *Journal of Educational Psychology*, 84, 504-519.
- Hinds, J. (1980). Japanese expository prose. *Papers in linguistics: International journal of human communication*, 13 (1), 117-158.
- Hinds, J. (1982, May). *Contrastive rhetoric: Japanese and English*. Paper presented at the annual convention of teachers of English to speakers of other languages, Honolulu, HI.
- J. (1987). Reader versus writer responsibility: A new typology
- ERIC U. Connor & R.B. Kaplan (Eds.) *Writing across languages:*

- Analysis of L2 text* (pp.141-152). Addison-Wesley Publishing Company.
- Kamimura, T. & Oi, K. (1994, March). *The role of cultural awareness in contrastive rhetoric*. Paper presented at the annual meeting of the International Conference on Pragmatics and Language Learning, Urbana, IL.
- Kaplan, R. B. (1966). Cultural thought patterns in intercultural education. *Language learning*, 16, 1-20.
- Kaplan, R. B. (1987). Contrastive rhetoric and second language learning: Notes toward a theory of contrastive rhetoric. In A. C. Purves (Ed.), *Writing across languages and cultures: Issues in contrastive rhetoric* (pp. 275-304). Newbury Park, CA: Sage
- Lee, C. & Scarcella, R. (1992). Building upon Korean writing practices: genres, values and beliefs. In F. Dubin & N.A. Kuhlman (Eds.) *Cross-cultural literacy* (pp. 143-161). Regents/Prentice Hall, NH: Englewood Cliffs.
- Liebman-Kleine, J. (1987, March). *The student as researcher: An ethnographic study of contrastive rhetoric*. Conference on college composition and communication, Atlanta, Georgia.
- Martin, J.R. (1991). *English text: System and structure*. Benjamin: Amsterdam.
- Martin, J. R. (1993). A contextual theory of language. In B. Cope & M. Kalantzis (Eds.) *The powers of literacy: A genre approach to teaching writing* (pp. 116-153). The Falmer Press, London/Bristol: PA
- Mohan, B. A. (1986). On evidence for cross-cultural rhetoric. *TESOL Quarterly*, 20:2, 358-361.

A Study on Reading Comprehension Processes in Chinese and English: Interdependent or Universal

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This study was conducted to investigate the relationships between comprehension strategies in first language and second language reading. The findings suggest that the most effective strategy training may consist of encouraging readers to become more aware of their existing comprehension strategies and aware of their strategy use.

Introduction

There is a lack of information on second language (L2) readers' comprehension processes in L2 reading research. We still do not know whether L2 readers process a text similarly or differently in L1 and L2. Two hypotheses, the common underlying proficiency hypothesis and the reading universal hypothesis, claim that reading is a skill interdependent or universal across languages. These two existing theories share some commonalities and emphasize cognitive commonalities in reading comprehension processes across languages. What is needed is empirical research to explore the nature of L1 and L2 reading comprehension processes. Information about how the same readers cope with reading tasks in L1 and L2 is needed. Evidence can only be obtained from empirical experiments on comprehension processes in L1 and L2 with the same individual readers. This study was conducted to remedy this lack of information in L2 reading research.

Related Literature

Common Underlying Proficiency Theory

Cummins (1981, 1983) argues that an underlying cognitive/academic proficiency or interdependence exists, common to all written languages. Cummins (1983, 1984) explains that there is only so much space or capacity available in our brains for language or literacy. He compares the space of language or literacy to a balloon. If we divide the space between two languages, blowing into the L1 balloon will succeed in creating literacy in L1 but not L2. If that is the case, literacy in neither language

will develop properly. For the purpose of bilingual education, Cummins argues that we can better inflate the L2 balloon by blowing into the L1 balloon because the space for literacy development is not, and should not be separated. For L2 learners, the space of literacy is like a balloon with two channels, L1 and L2, to blow into. L2 learners can thus benefit from proficiency either in L1 or in L2, or from both, since literacy skills can be seen as common or interdependent across languages.

This hypothesis suggests that educated adult L2 readers who are already literate in L1 may have two channels available to them as they develop literacy skills in L2. Educated L2 readers can draw on their literacy skills and knowledge of literacy practices from L1 and they can also draw on input from the second language. Research on educated adult L2 readers might indicate a two-way transfer, that is, from L1 to L2 and vice versa, since adult educated L2 readers have something to transfer both ways. However, there has been no research done to test the common underlying proficiency hypothesis with educated adult L2 readers.

The Reading Universal Hypothesis

The psycholinguistic point of view of L2 reading has been addressed by Goodman, (1970, 1971, 1973), as the reading universal hypothesis which suggests that the primary goal of reading is comprehension. Comprehension uses both sensory and nonsensory sources (Rumelhart, 1977) or seen and unseen information (Bernhardt, 1991) to construct the meaning of a passage. During reading, readers predict the meaning of a text by relating it to their background knowledge and use other available strategies along with the incoming sensory data. Readers may refine, confirm, or even reject the initial prediction of the meaning.

Goodman (1973) argues that the key question is how much background knowledge the reader brings to the specific reading task. He argues that the reading process will be much the same for all languages, with minor variations to accommodate the specific characteristics of the writing systems and the grammatical structures of each. Because no research has been done in L2 reading to test this hypothesis, Goodman calls for researchers "to test and challenge the hypotheses in terms of languages and orthographies other than English" (Goodman, 1970, p. 103).

Purpose and Research Questions of the Study

In order to determine which of the two theories could account for L2 readers' comprehension processes in L1 and L2, this study investigated the comprehension processes of the same individuals when they read in L1 and L2 and explored these questions:

1. What specific comprehension strategies were used by these Chinese readers reading expository texts in L1 and L2?
2. To what extent did these Chinese readers use similar or different comprehension strategies when reading in L1 and L2?

Method

Participants

Eight research participants from different faculties were drawn from the Chinese Student and Scholar Association at the University of Victoria. All participants were native Chinese speakers who were born and raised in China. They received a Bachelor Degree in China. They were enrolled in the Faculty of Graduate Studies when this study was conducted. They had an average of 12 years of L2 learning experience. They had studied for an average of 3.7 years in an English speaking country. Their average score of TOEFL was 595.

Reading Materials

The purpose of this study required two authentic passages on different topics from both Chinese and English. The two texts with similar length, structure, and difficulty level, were chosen unanimously by four independent raters from twenty passages found in academic publications for first language readers. The structure of both texts was analyzed following Meyer's (1984) categories for expository text structure and was classified as a collection of descriptions. The length of texts was 626 to 634 words.

The texts were photocopied and presented as they appeared in the original book or journal but modified using Olshavky's (1976-1977; see also Block, 1986) method of inserting red dots after each sentence to remind the participants to talk about their thinking. In addition, a line number was added to the end of every fifth line of the passages. For instance, at the end of the fifth line, there appeared a number 5, and at the end of the tenth line, there appeared a number 10. These line numbers made it easier for the participants to refer to a certain sentence when they reported their reading comprehension strategies.

Data Collection

Both a think-aloud protocol and comprehension strategy check-list were used in this study. Think-aloud protocols were used to collect data during the reading. Reading comprehension strategy check-lists in both

reading task in order to collect additional data and to triangulate the data obtained from the think-aloud protocols. This study, in contrast to previous research, required the participants to perform the think-aloud task in both languages. Participants verbalized their thinking in L1 when they read in L1 and verbalized in the second language when they read in L2. The two data collection sessions were a month apart.

Inter-rater Reliability.

The researcher initially coded the think-aloud protocols and categorized the responses and strategies. Thirty-eight percent of the transcriptions of the think-aloud protocols were randomly selected and sent to be coded independently by two expert raters who were able to speak and read in both Chinese and English. The inter-rater reliability between the researcher and rater 1 was 91% and 93.5% between the researcher and rater 2.

Results

In this section four results related to the two research questions are presented.

Results for Research Question 1

What specific comprehension strategies were used by these Chinese readers reading expository texts in L1 and L2?

Twenty-four types of strategies were observed and classified into four categories reflecting their functions and strategy sources. *Text-based strategies* refers to the way participants operated to construct meaning of the text by focusing on selected components of the original text; words, phrases, clauses, or sentences. Six strategies are included: focusing on vocabulary; relating to prior sentences; summarizing or making conclusions; using sentence or grammatical structure; reading on; and questioning and looking for answers in the text. *Text structure-based strategies* reflected attempts by the participants to use their knowledge of text organization to facilitate their comprehension were included in this category. This category includes five types of strategies: looking for key words; identifying main ideas or topic sentences; recognizing the structure of the text; checking the consistency and coherence of text; and evaluating text organization. *Text and prior knowledge combined strategies* indicated that the participants used both information from the text and from their prior knowledge about the content, language, and their world experience. The strategies indicated that the text functioned as a trigger. The information in the text triggered some prior knowledge in the participants' long-term memory. Four strategies were

included in this category: relating to prior knowledge; evaluating the content of the text; representing the meaning of sentences; and forming hypotheses about the content of the text. Self-corrective strategies reflected more declarative, procedural, or conditional knowledge and indicated that the participants had procedural knowledge for planning, monitoring, and evaluating their own comprehension. These kinds of strategies indicated that the participants focused on understanding and presented evidence of self-efficacy. This category includes nine strategies: adjusting reading speed; skipping unknown words; borrowing words from another language or switching language; skimming or scanning; revising or confirming comprehension of a former part; monitoring comprehension; rereading; marking or underlining a certain part of the text; and monitoring own comprehension strategies.

Results for Question 2

To what extent did these Chinese readers use similar or different comprehension strategies when reading in L1 and in L2?

To answer this research question, the total number of strategies and frequencies of each of the strategies used by the participants as a group when reading the L1 and L2 expository texts were examined. The mean and standard deviation for the total strategies and the total frequencies used for the Chinese and English passages are reported in Table 1.

Table 1 Data about Strategies and Frequencies

Passage	Strategies			Frequencies		
	Total	Mean	SD	Total	Mean	SD
Chinese	121	15.1	3.1	428	53.5	15.7
English	129	16.1	3.0	496	61.5	18.4

N=8

Strategies refers to the total number of strategies used by the eight participants as a group when reading the Chinese or the English passage. Frequencies refers to the sum of frequencies of all strategies used by the participants as a group. Table 1 shows that the participants as a group used similar numbers of strategies in Chinese and English. The frequencies of strategies used in the two languages were also close. These results suggest that the participants processed the texts similarly in the two languages.

To better answer research question two, data obtained from both read-
formances were compared. A comparison of the strategies used
Chinese and those used in English revealed that over 80% of the

strategies were used in both languages. Table 2 shows the number and percentages of the common strategies used by the participants when reading the two passages.

Table 2 Data about Strategies Used in Both L1 and L2 Reading Performances

Strategies		Both languages	Percentage	
Chinese	English		Chinese	English
121	129	106	87.6%	83.0%

N=8

The number of strategies used in both languages provides further evidence to suggest that the strategies used in Chinese correspond to the strategies used in English. This result suggests consistency or stability in the strategies used by the participants when processing reading tasks across the two languages. That is, most of the strategies used by the participants were the same when reading the expository texts in L1 and L2.

A close examination of the categories of strategies used by the participants in the two reading performances was conducted to obtain more detailed information about whether there existed difference among the strategy categories used. Table 3 shows the frequencies and percentages of strategy category used by the readers in L1 and L2 reading tasks.

Table 3 Data about Group Frequency and Percentage of Strategy Categories

Strategy Category	Chinese		English	
	Freq.	%	Freq.	%
Text-based strategy	91	21%	106	21%
Text structure-based strategy	47	11%	53	11%
Text & prior knowledge combined strategy	166	39%	215	43%
Self-corrective strategy	124	29%	122	25%
Total	428	100%	496	100%

N=8

Freq. = frequency

The results suggest that the participants used comprehension strategies very flexibly in both languages and that the frequencies of use of each strategy category were similar or identical cross the two languages. These findings indicate that the participants processed the texts in the two languages in a similar manner.

Discussion

Cummins' (1984, 1991a, 1991b) Common Underlying Proficiency Hypothesis can be used to explain the results of this study. A major finding that emerges is that the participants processed the texts similarly in both languages. They used similar strategies and the occurrences of these strategies in the two languages were comparable. The underlying factors that enabled these participants to process the texts as flexibly in L2 as in L1 might be a result of their developed cognitive or academic abilities. Despite the obvious differences in phonology, syntax and lexicon between L1 and L2, there exists a common conceptual resource that determines an individual's performance in cognitive or academic tasks such as reading (Cummins 1984, 1991a, 1991b). Beyond decoding or word recognition, comprehending is a more cognitively demanding process involving the coordination of attention, memory, the perceptual, and comprehension processes in which a reader constructs meaning from a written text. In this process, language is no doubt a prime determinant in reading comprehension. However, at the level of constructing meaning of written material, cognitive strategies such as problem-solving strategies used by the readers in this study seem to take more responsibility. Regardless of the obvious differences in writing systems between L1 and L2, there exists a common conceptual resource that determines an individual's performance on cognitive or academic tasks such as reading in L1 and L2. Cognitive strategies appear to underlie comprehension processes in both L1 and L2.

The results of this exploratory study provide evidence to support Goodman's reading universal hypothesis. First of all, the findings suggest that the participants in this study used similar strategies to construct the meaning of expository texts in L1 and L2. Twenty-four strategies were derived from both the participants' comprehension processes in Chinese and in English. Second, these readers used the identified strategies and strategy categories with similar frequencies. The reason that these similarities occurred in the comprehension processes can be better explained by Goodman's reading universal hypothesis. The primary goal of reading the two expository texts was the same—to understand the texts. To reach the primary goal of reading requires of the readers not just proficiency in the language, but most important, requires them to bring all their cognitive and metacognitive strategies into play. These strategies include problem-solving, predicting, logical analysis, summarizing, and monitoring. Reading comprehension in any language also requires readers to bring their procedural knowledge (O'Malley & Chamot, 1990) into full play. The participants in this study
ll of the strategies that they believed appropriate to construct
g of the texts. Furthermore, they were performing similar tasks

so that their processing strategies were similar despite differences in language.

Conclusion

The comprehension strategies derived from the study suggest that the interdependence between L1 and L2 comprehension strategies is influenced by cognitive universals. It is important to note that what is universal is primarily operational or procedural knowledge rather than specific language elements. The results of this study support the Common Underlying Proficiency Hypothesis (Cummins, 1984, 1991a, 1991b) and the Universal Hypothesis (Goodman, 1970, 1971, 1973).

The results of this study indicate that we still have a lot to discover about comprehension processes. For example, the impact of L1 comprehension strategies on L2 reading comprehension is still uncertain. Nonetheless, this kind of research can enable us to understand comprehension processes better and provide L2 researchers and L2 instructors with revealing insights into the reading comprehension processes of already-literate L2 readers reading in two languages.

References

- Bernhardt, E. B. (1991). A psycholinguistic perspective on second language literacy. *AILA Review*, 8, 31-44.
- Block, E. (1986). The comprehension strategies of second language readers. *TESOL Quarterly*, 20 (3), 463-494.
- Cummins, J. (1983). *Heritage language education: A literature review*. Toronto: Ministry of Education.
- Cummins, J. (1984). The role of primary language development in promoting educational success for language minority students. In *Schooling and language minority students: A theoretical framework* (pp. 3-49). Los Angeles; Evaluation, Dissemination and Assessment Center, California State University.
- Cummins, J. (1991a). Interdependence of first- and second-language proficiency in bilingual children. In E. Bialystok (Ed.) *Language processing in bilingual children* (pp. 70-89). Cambridge: Cambridge University Press.
- Cummins, J. (1991b). Conversational and academic language proficiency in bilingual contexts. *AILA Review*, 8, 75-89.
- Goodman, K. S. (1970). Psycholinguistic universals in the reading process. *Journal of Typographic Research*, 4, 103-110.
- Goodman, K. S. (1971). Psycholinguistic universals in the reading process. In P. Pimsleur & T. Quinn (Eds.). *The psycholinguistics of second language learning* (pp.135-142). Cambridge: Cambridge University Press.
- Goodman, K. S. (1973). Psycholinguistic universals in the reading process. In F. Smith (Ed.), *Psycholinguistics and reading* (pp. 21-29). New York: Holt, Rinehartland Winston.
- Olshavsky, J. E. (1976-1977). Reading as problem solving: An investigation of strategies. *Reading Research Quarterly*, 12, 654-674.
- O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge University Press.
- Rumelhart, D. E. (1977). Toward an interactive model of reading. In S. Dornic (Ed.), *Attention and Performance*, 6 (pp. 573-603). Hillsdale, NJ: Erlbaum.

Visual Persuasion: The Power of Advertising Art

Bill Zuk and Bob Dalton

Advertising art is an important and powerful artform affecting us on a personal level. By conducting a critical analysis of advertising images and text, we can discover the way it attempts to persuade or manipulate us.

Advertising has been referred to as a mirror image of society's activities. Its ability to announce, promote, persuade, and manipulate is well documented by media gurus such as Marshall McLuhan (1974) who suggested that advertising contains one of the most vivid and faithful reflections of a society. However, there are often conflicting views about the role of advertising. Some would say it celebrates our accomplishments and contributes to a healthy economy while others see it as a highly persuasive medium that is powerful and insidious, inducing us unduly to consume and waste. Whatever view one holds about advertising, there seems to be little doubt that a study of its art forms is important. Lanier in Zuk (1977) recognized the need to begin a study of advertising as a component of art education programs in schools in order that the development of critical awareness can begin taking place early in a child's life. He states:

Advertising is a ubiquitous and penetrating popular art form available through television and magazines in most homes as well as through many other sources outside the home. There is a critical need to understand (and teach youngsters to understand) both its mechanisms and its content (p.105). One possible beginning to a study of advertising art includes the development of a critical understanding of the power of visual images as well as investigating how image development concepts and mechanisms function as an effective tool in the creation of advertisements.

Ad Testing, Critical Inquiry and Image Development

There can be little doubt that advertising has an effect on us. At a most basic level, researchers are able to demonstrate the physical responses we have to ads. Eye-tracking oculometers record the way our eyes scan an image, noting particular features that attract our attention and how long interest is sustained. Such testing provides advertisers with valuable information, especially when it is supported by other tests involving gal-

tional state. Since advertisements that excite an audience are more likely to be remembered than those that elicit a minimal physiological response, tests like these enable advertisers to choose and improve ads using subjects in a clinical setting before launching large scale campaigns.

Most advertisements do not undergo this kind of research. They depend more on past experience to predict what will succeed. The ultimate test of a successful advertisement is whether or not it has the desired effect. Is there a significant increase in sales of a product? Has a political candidate surged ahead in public opinion poles? Are donations to a charity growing in response to the public appeal launched by the agency handling the promotion?

Sometimes serious miscalculations occur, especially when companies are aggressively attempting to gain recognition for their product in a highly competitive market. Advertisements may bring about a negative response. Consumers may complain about an ad they find offensive. If an ad pushes the boundaries of public taste, it may provoke a strong reaction from people who not only refuse to buy the product but threaten sanctions ranging from boycott to legal action. There are many examples of campaigns that went awry. The Tareyton cigarette campaign of the 1970's used the slogan "Us Tareyton smokers would rather fight than switch "[brands of cigarettes]. Smokers with a black eye were featured in images. Many viewers of the ads were not amused. Smokers boasting about engaging in a fist fight was a message that many found offensive. Pictures of women smokers with blackened eyes aroused indignation from viewers who considered the ad to condone violence against women.

It is possible to determine physiological responses to ads. It is also possible to recognize the enormous impact of those ads upon viewers' social behaviors as consumers purchase advertised products or launch protests against ads deemed to be offensive. But these behaviors only tell us the ads are having some kind of effect. If we are to attempt to understand the power of visual persuasion, we need to learn more about how and why they work. This calls for critical inquiry, a method for analyzing and evaluating artworks in order to better understand them. Viewers are better able to respond intelligently when they learn about the values of our society and the ways advertising artists select and compose images to alter or extend those values through connecting them with goods and services. Viewers may accept or reject the message, admire or dislike the advertisement as a work of art, or respond publicly, praising or protesting the ad.

Art educators frequently use a model developed by Feldman (1992) who recommends that critical inquiry should begin with description and an

account of what can be seen. Viewers exercise their powers of observation, noting recognizable content or subject matter such as shape, colour, and texture, and the use of art media such as film, paint, and clay. Analysis follows description; it involves an examination of how imagery, elements, and media are brought together to create the artwork. Relationships are discovered that form the basis for theories about possible meanings of the work. In analysis, the critic learns how ideas are emphasized, contrasted, or unified within the composition. While image development strategies are not mentioned by Feldman, they play a significant role in the information that must be gathered to interpret advertisements or any work of art. Scholars (Roukes, 1982; Robertson, 1988) have noted how artists creatively alter or transform images by simplifying, elaborating, distorting, fragmenting, animating, or juxtaposing them. Such image development strategies can be combined in ways that further change the meaning of the image and its effectiveness in an ad.

Another level of critical analysis involves interpretation. Critics will propose a number of hypotheses that seem able to account for what has been discovered in the artwork. Extrinsic information is also considered. This includes the viewer's personal responses, the social context in which the artwork was created, and the artist's own statements about its intended meaning. Since changing social, personal, and cultural conditions affect our perceptions, it should come as no surprise to learn that a single work of art can be interpreted differently at different times by different people. Art criticism may stop at interpretation, but it may also proceed to a final step, judgement. Here a critic poses further questions: Is it well done? Is it an important work? What makes this or any work of art valuable or significant? Questions like these are sometimes difficult for students to answer when they do not have developed criteria to evaluate a work of art or lack enough experiences with art to have developed a standard for comparing one piece of artwork with another. Since this is the case, it would suggest that introducing advertising art into the school curriculum could be advantageous. Students are generally much more familiar with this kind of art and are better able to make comparisons and develop criteria for judging it.

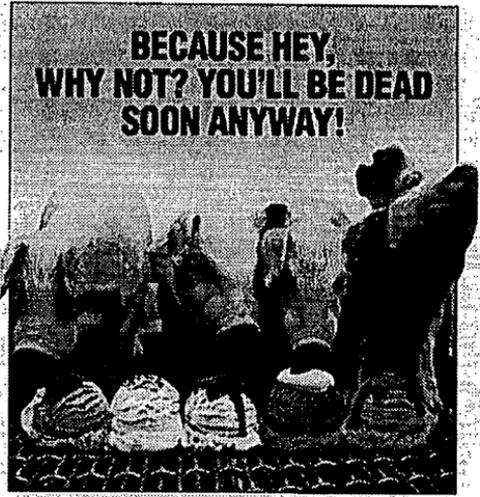
The Making of Creative Ads

While talk and writing are important ways of responding to works of art, they are certainly not the only ways in which one may engage in critique. Artists themselves are able to create artworks that expose some of the underlying assumptions and claims of advertisements. In advertising art certain conventions were developed that have become so familiar that audiences have come to accept them without question or critical

Full page ads that present a product in an expansive and unclut-

tered setting, for example, suggest that the product is rare, expensive, and elegant. By contrast, many small ads combined on a single magazine page tend to convey ideas of abundance, bargain prices, and perhaps a festive occasion. By using these conventions and introducing unexpected twists, some humorous and satirical counter-ads have been created, ads that entertain viewers by poking fun at familiar products and their advertising campaigns. For example, *Sty* magazine is one of a number of publications to exploit humour and unusual juxtapositions. The ads and articles in the magazine have a common theme pigs.

In the "Höggen-Das" ad shown in Figure 1, the artists have created a play on the name of the ice-cream company, preparing viewers for the introduction of pigs to an ad that would normally involve people enjoying the treat. The pastel colours used in the ad contribute much to the idea of sweetness, appealing to our sense of taste. Those pastel colors also have associations with turn of the century, hand tinted photographs. This introduces a romantic quality to the image. The ice-cream is presented as though it were one of those wholesome traditional foods that our grandparents had on special occasions. Colour can be an



Höggen-Das

Figure 1 Advertisement for "Höggen-Das" Ice Cream

important signifier. Upsetting those good feelings of nostalgia for the simple pleasures of an earlier time and the anticipation of tasting the ice-cream offered in the picture, is the sight of four hogs sniffing at the food. The image development strategy employed is that of juxtaposition. The sight of children eating an ice-cream bar or hogs eating grain in a trough would seem familiar and would probably arouse little emotion. But viewers are likely to experience the unsettling conflict of attraction and revulsion when hogs and Höggen-Das ice-cream are brought together. The bold message appearing above the image provides further information to the point of this counter-ad. Viewers are given a reason to eat a

lot of ice-cream. Far from the usual reasons of rewarding ourselves, celebrating special occasions, or wholesome foods, this advertisement seems to admit that ice-cream is not good for you. The message is a fatalistic one; since we're going to die anyway, we might as well abandon any efforts to eat sensibly. The pigs do not promise we will be slender, beautiful, admired, or loved. They don't even promise we'll enjoy the experience.

This ice-cream ad may be viewed as subversive, exposing some of the subtle devices used by advertising artists to persuade viewers. Analyzing advertisements and creating effective counter-ads requires a comprehensive understanding of how images work. An artist-critic must know how advertising messages are constructed. Armed with this knowledge, elements must then be introduced that contradict the usual or expected message. An immediate result may be surprise, shock, or amusement. Upon further reflection, viewers may begin to ask why the counter-ad has such an effect. This reflection can lead to thoughts and discussion about the power of images and the responsibility that comes with making them.

Implications for Teaching and Learning

An analysis of advertising art leads to the recommendation that this important form of art should be included as a component in school art curricula. This paper recommends making use of a kind of art with which students are familiar, advertising art, as a point of entry for learning about image development and critical inquiry. This is a position supported by scholars (Lanier, 1969; Marantz, 1988) who argue that art education must be relevant to the young people in our classrooms. Advertising art is readily available to students through mass media. Many ads are directly aimed at them, as advertisers attempt to persuade young consumers.

An important part of understanding and constructing images should include an investigation of image development strategies. Students are empowered when they come to realize how many things can be done to alter and transform images and what those alterations can do to affect the meaning of artwork. Students can communicate many more ideas when they understand the nature of image development. Advertising provides some of the best examples of manipulation of images, especially with access to computer software programs that make alterations to the image much easier than ever before.

The conventions of advertising and the values promoted in ads are often so familiar that they go unnoticed. Students may find it easier to

they see advertisements from other times and places. Substitution is an image development strategy that is frequently used as a convention in advertising art. Substitution involves an exchange of parts in which one thing replaces another for the purpose of extending its meaning or altering its function. Because it often presents us with a familiar image and surprises us by introducing something new and unexpected, substitution has a unique way of capturing attention.

Acting as a visual metaphor, the loaf of bread (Figure 2) replaces the balloon to suggest that the loaf is lighter than air. The simple and imaginative substitution transmits a clear and memorable idea in an instant. It promises that the homemaker's bread will rise perfectly when this brand of flour is used. This advertisement for the Duluth Flour Company is an early and effective example of the use of substitution in advertising art.

The ad shown in Figure 2 was created one hundred and seven years ago. There are three young women in the basket. Advertisers often use carefully chosen models to promote their products, in the belief that consumers are more likely to be persuaded to purchase a product used by attractive and successful people. If we can assume that the women in the Duluth ad are idealized by the artist, what was the ideal woman of the 1890's? How does she differ from the idealized woman of today? What kinds of products were advertised in the nineteenth century? What can we learn from this window of history about life in those times? What are the values that are presented in the ad?

Many questions of this type can involve students in historical research. Looking at ads from earlier decades can invite comparison with those of today, and through such a comparison we can come to recognize more fully the methods of advertising art and the messages that are presented. Similar discoveries may be made when the advertising art of other cultures is investigated. Comparing ads from North America with ads from other areas of the world may enable students to understand how their way of life, their values, and their beliefs seem to differ from or may be similar to those of another culture.

When engaging in critical inquiry, the resulting interpretation can lead to judgement. There are serious social and moral issues to be considered. According to Berger (1972) ads pose a threat to democracy by reducing our freedom of thought and action. Berger contends that ads explain everything in their own terms, interpreting the world for us. In so doing, they seek to limit our freedom of choice to economic decisions of acquiring and consuming. Barthel (1988) is also critical of advertising. She faults advertising for focusing attention on the individual, promising happiness through possessions and appearances. With its emphasis on "I" the



Figure 2 Advertisement for Duluth Imperial Flour

some advertisers use sexually explicit or provocative imagery to sell jeans, cosmetics, and automobiles. Some viewers are offended by this type of advertising, finding it degrading. When students critically evaluate advertisements, they may wish to investigate and contact the regulatory bodies that monitor advertising. The Canadian Broadcast Standards Council is one such government agency, while Media Watch is a public action group that monitors images of women in the media. There are also self-regulatory groups such as the Association of Canadian Advertisers, and the Canadian Advertising Foundation.

While it is necessary to monitor ads to insure that they do not offend or mislead viewers, students must also gain a balanced view. It is important to recognize that many advertisements are positive, informative, bril-

social good is neglected. The problem is not what advertising does, but what it does not do. Advertising, for example, would not likely urge viewers to help elderly neighbors with yard work or show concern for their welfare. Barthel rejects Berger's suggestion however, that advertising can be blamed for our consumerism madness. Advertisers are not hidden persuaders but rather the mirror in which we see ourselves.

Whether creating or critically responding to a single ad, or engaging in a critique of the field of advertising as a whole, students should consider the moral and ethical concerns that arise. Is the advertisement misleading or harmful in any way? Helm (1996) describes a Hyundai car commercial shown recently in the media, part of a sixty million dollar television and print campaign, that shows a small-scale version of the car being driven along the contours of the body of a slender young woman. Helm cites this example to show that

liantly conceived and constructed, and a pleasure to view. These set new standards of excellence for the industry. An enquiry into the world of advertising art should acknowledge the best achievements of artists in the field. By learning from exemplars, students will be inspired to set new goals for themselves in creating and responding to art.

Strategies for Learning

In learning about ads, a basic starting point would be to gather examples of advertisements from print sources such as the magazines students commonly read. These could be described, analyzed, interpreted, and evaluated. A next step might be to conduct a similar enquiry using advertisements videotaped from television. This introduces a further level of complexity with the added dimensions of time, movement, and sound. Historical ads and advertisements from other cultures would provide a wider perspective on contemporary advertising in North America. Once students have become familiar with criticism of individual works, they may be ready to deal with theories of criticism such as feminist critical theory which explores the stereotyping of women in advertising. At this point students are better equipped to view the field of advertising art holistically.

Strategies involving studio work have much to contribute to student learning about advertising. Role playing is an excellent way for students to learn about the advertising industry. The classroom may become an advertising agency that is approached by a client who wishes to launch a new product through a promotional campaign. The art director may work with a team of artists to establish a target market for the product and create a distinctive identity for the product. The campaign can be planned from thumbnail sketches to camera-ready artwork. More challenging activities may include the production of counter-ads that require a critical analysis of the product.

A critical enquiry of advertising art should have a role in every art curriculum. It can provide students with a broader view of art, one that goes beyond fine art found in museums and galleries, to include an important part of popular culture. There are also important connections to be made between advertising art and other curriculum areas providing a focal point for integrated learning. In television advertising, for example, there are evident connections among the arts that bring together visual ideas with sound, drama, and written communication.

The growing influence of visual media makes it all the more necessary that we understand the power of images, how they are constructed, what they mean, and how they affect us. Students have much to gain from an investigation of advertising art.

References

- Barrett, T. (1994). *Criticizing Art: Understanding the Contemporary*. Mountain View, CA: Mayfield Publishing.
- Barthel, D. (1988). *Putting on Appearances: Gender Advertising*. Philadelphia, PA: Temple University Press.
- Berger, J. (1972). *Ways of Seeing*. London: British Broadcasting System and Penguin Books.
- Blount, S. and L. Walker. (1988). *The Best of Ad Campaigns*. Rockport, MA: Rockport Publishing.
- Feldman, E. (1992). *Varieties of Visual Experiences*. 4th ed. Englewood Cliffs, NJ: Prentice-Hall.
- Goffman, E. (1976). *Gender Advertising*. San Francisco, CA: Harper and Row.
- Heller, S. and B. Chivast. (1989). *Sourcebook of Visual Ideas*. New York: Van Nostrand.
- Helm, R. (1996). From cars to jeans, sex still sells. *Edmonton Journal*. Friday, May 3, 1996. Canadian Press .
- Holme, B. (1982). *The Art of Advertising*. London: Peerage Books.
- Lanier, V. (1969). *The teaching of art as social revolution*. Phi Delta Kappan. February '69, pp. 314-319.
- Marantz, K. (1988). The object on our art education landscape, esthetically speaking. *Studies in Art Education* 29 (3) 259-261.
- Margolin, V., Brichta, I., and V. Brichta. (1979). *The Promise and the Product: 200 Years of Advertising Posters*. Toronto, ON: CollierMacMillan.
- McLuhan, M. (1974). *Understanding Media*. Toronto, ON: McGraw Hill.
- Robertson, B. (1988). *Fantasy Art*. Cincinnati, OH: Northern Light Books.
- Roukes, N. (1982). *Art Synectics*. Calgary, AB: Juniro Arts Publications.
- Sobieszek, R. (1988). *The Art of Persuasion: A History of Advertising Photography*. New York: Harry N. Abrams.
- Williamson, J. (1983). *Decoding Advertisements: Ideology and Meaning in Advertising*. New York: Marison Boyars.
- Wolf, A. (1988). *Visual Thinking: Methods for Making Images Memorable*. New York: American Showcase Inc.
- Zuk, W. (1977). Advertising and Art Education. *International Society of Education through Art*, 8, 103-109.

Constructing Continuity, Exploring Possibility, Celebrating Ambiguity: The Evolution of Our Collaborative Practice with Pre-service Teachers in Social Studies and Language Arts

Vicki A. Green and Nancy L. Evans

This paper describes the evolution of three collaborative assignments in social studies and language arts. It identifies the insights gleaned while working together with pre-service teachers in a partnership education program.

Background

If one holds a constructivist view of learning, in which the learner actively constructs meaning according to what he or she already knows and believes, it follows that good teaching must itself involve learning through active enquiry ... (Baird, 1992, p. 36)

This paper describes a three year evolution of collaborative assignments in social studies and language arts and identifies the insights gleaned while working together with pre-service teachers in a partnership education program at Okanagan University College. Social studies and language arts assignments were created to aid our students to holistically connect these curriculum areas. The student teachers have, in turn, informed our reflective practice and helped us to better establish connections between social studies and language arts based on our growing experiential and constructivist understandings. The students in this pre-service program are predominantly women who range in age from twenty to fifty years. Approximately 15% of the students in each year are males ranging in age from twenty to forty-five years.

The First Assignment: Constructing Continuity: Integrating Social Studies and Language Arts

"Instead of 'curriculum implementation' how about 'curriculum improvisation?'" (Aoki, 1991, p. 26)

An assignment was designed that asked our students to thematically integrate social studies and language arts through the use of fiction and non-fiction materials. This assignment, to be used on practicum, led major goals, understandings, annotated resources, and assessment plans.

It soon became apparent to both instructors and students that this assignment lacked a specifically stated audience focus. Was this assignment for the student teacher, the methods instructors, the sponsor teacher or the children? The students responded by over-planning for a myriad of audiences. In addition, our students became competitive due to the sharing of limited resources.

However, through this initial assignment, a number of things about collaboration between ourselves and with our students were made apparent. First, the assignments were marked by each instructor. Meetings were held to review each one and the grade assigned. As much as we are different in personality and practice, our standards for marking were highly consistent. We began to trust one another, and through investigation and discussion we recognized the difficulties our students encountered.

We identified that determining an audience was one of the barriers to constructivist learning. Another barrier was that the assignment was not developmental. The emphasis was placed on the final product only and did not explore the process. This product model of curriculum largely ignored the context for use and the quality of our students' learning experiences. We did provide support workshops and the groups that were formed among the students added a positive collaborative feature. Even so the students assumed that they had a useful teaching unit for practicum and the grades achieved reflected the extent that their unit would "work" with children.

In addition, we later learned that some sponsor teachers offered a great deal of help to their student teachers and, as a result, we ended up grading a part of these sponsors' efforts. Unfortunately, some students had sponsor teachers who used organizational structures that prevented them from using their integrated assignment. Neither of us realized this at the time. Consequently, the pre-service teachers understood, more than we, that this assignment was unequal and ultimately unfair.

Our focus on integration of social studies and language arts through literature selections and strategies demanded that we reconceptualize our efforts to better meet our needs and the needs of our students, for their students. In addition, we reflected upon our understandings of prior practice within a new learning environment. The strengths of collaboration and trust from past working relationships were transferable within this new context. Harste, Woodward and Burke (In Patterson et. al. 1993, p.157) identified that "learning involves a search for connections across experiences, perspectives and people that will help learners make sense of the world." Our sense as learners was strengthened by

The Second Assignment: Exploring Possibility: Connections Across the Curriculum

“... become actors in history who can in some measure transform the reality they [you] have inherited.” (Weiler, 1988, p. 73)

Our second collaborative assignment reduced the barriers to constructivist understandings. Our students worked with their sponsor teachers to find out if a cross curricular assignment would be possible during practicum. This feasibility study alerted the sponsors to new practice or reinforced those sponsors who currently incorporated such practice with the children. The assignment provided an opportunity for collaborative planning with the sponsor teachers. In addition, to avoid the previous over planning, we limited the format of our assignment to six 5x8 cards. Each card was an overview of one practicum week. The students' lesson plans could be drawn from broad previews, which included connected goals, strategies, possible learning outcomes, selected resources, and plans for assessment. There was evidence of peer collaboration and planning-in-progress. We had built a small bridge between the methods classes and the practicum classrooms. Students were alerted by instructors and sponsor teachers that they would be expected to adapt, revise, and replan during practicum. The cards created space to include our collaborative practice and the relevance of students' work-in-progress. However, the format did not include space for detailed planning for practicum. In fact, students whose weekly planning was too detailed found the cards inadequate and had to file this detailed planning for later use. Students were asked to provide an annotated bibliography for their selection of print and non-print resources.

There was greater opportunity in this second assignment, for choice, individuality, and openness, and ultimately, for a unit of practical use with children. The false certainty that undermines constructivist learning in pre-service teacher education programs was reduced whereas the reality of ambiguity, although confined, was increased. The contradiction between false certainty and the reality of ambiguity is defined by Harste, Woodward and Burke (In Patterson et. al. 1993, p. 157) who state, “Students are not encouraged to become risk-takers who live with the ambiguity and tension of knowing they must act on their current knowledge while realizing that these understandings are incomplete...”.

The Third Assignment: Celebrating Ambiguity: Artifact and Poetry

“.. learners create demonstrations for themselves from the potential inherent in the instructional setting. As teachers we have no way of

controlling what learners will take from any situation. Different people will engage with the same potential demonstrations differently... There is, or should be, engagement in both directions. From a transactional, uncommon sense, perspective we teachers must be learners, too (Newman, 1991, p. 180).

The third collaborative undertaking, an artifact and poetry assignment, included two individual assignments that dovetailed together. In language arts, students explored ten poetic formats, ranging from haiku through free form. The formats were investigated in groups of three and through peer teaching, were presented to the rest of the class. In social studies, students investigated and presented an artifact of their choice and in language arts students wrote poetry about their artifact. Due two weeks apart, our students approached the artifact assignment in social studies separately from their poetry assignment. Since the exploration and presentation of artifact preceded the poetry, students did not select an artifact about which to write poetry. Instead, the artifacts were investigated from the vantage point of the student's curiosity, imagination, interest, questioning unexamined assumptions about race, class, and gender. The artifacts provoked students' questions and possible use with children.

Through sharing their artifacts and their assignments students could connect their artifacts with selected themes and topics within social studies and explore their own learning styles. Formally, the students wrote a possible learning objective and possible learning outcomes for artifact use with children. In addition, students explained how the artifact selected might provoke children's curiosity, questions, and imagination. Therefore, when the assignment on poetry required them to write different forms of poetry explored in class based on their artifact, their poetry naturally flowed from their concrete and experiential learning in social studies.

As instructors, we collaborated with each other, but not through a joint assignment with our students. As a result, we watched them construct meaning and understanding, form links and connections which guided their individual learning and led them to more fully understand and to implement the integration of social studies and language arts. There seemed to be more respect for all learners, including us, in the unfolding "curriculum-as-lived" (Aoki, 1991, p.3).

The coordination and timing of these complementary assignments created a sense of audience for our students. They had an opportunity to openly share their ideas and interpretations with classmates and could see what their peers had included from selected artifacts. This was not bed for practicum although our students did use artifact and with children. We demonstrated a model that unfolded natural-

ly and created a process for them to progress incrementally and effectively from the concrete artifact to the more abstract poetry writing.

An affective engagement with artifact became evident. They had explored their artifact from a number of different points of view before they attempted to write poetry. We graded the individual assignments and later noted implementation by some students during practicum planning. This sharing created a supportive and collaborative climate in our classrooms. We continue to acknowledge that students are knowers and creators of knowledge and there is space for learning from contingencies, accidents and peculiarities (Newman, 1991).

"Learning by doing is coming back, not only as an alternative educational doctrine, but in areas where competence is most highly valued" (Bateson 1994, p. 152). The artifact and poetry assignments can be visualized as a helix, with five recurring curves connecting social studies and language arts. First, the students learned background information and theoretical frameworks for the use of artifact and poetry with children. Second, the students presented their interpretations of each assignment and included their theoretical understanding for use with children. Third, the students shared their assignments with one another and created an audience for their work. Fourth, some students transferred their experiential learning of artifact and poetry with children during practicum planning. Finally, on practicum we watched them share their understanding with children.

Two examples are presented below. We would like to thank Darylene Godkin and Toni Tetreau for permission to include their work.

Darylene selected a turn of the century curling iron. She explained that in viewing this artifact children can note the amount of time needed to use this tool and will be able to identify the ways in which technology has changed the homes of Canadians. Children might question: What is this? How is it heated and used? How long would it take to work? Who used it? Additional discussion and inquiry might be extended to include: What other tools were used? Children might investigate other, now obsolete, household items: sadirons, wood stoves, washboards, and hand wringers. How long did chores take? Who did them? Children might explore childhood chores and their importance to the family.

Poetry, written by Darylene, in response to her chosen artifact, a turn of the century curling iron:

Free Form Poem

Today's the day
He'll come to call.
I want to impress him
I must have curl.

sweat,
trickles over my brow
streams down my back
pools beneath my breasts
seeps around my waist.

At last it's done
My hair is art
But I'm a mess
Tell him
I am...indisposed.

Diamante Poem

hair
long, straight
swinging, flowing, cascading
braids, ponytails, ringlets, curlicues
crimping, frizzing, waving
kinky, fluffy
coiffure

In her reflection about the assignment, Darylene stated:

I found this assignment different only because it seemed to be going backwards. I had an artifact and chose ideas to do with it and then wrote my objectives and possible learning outcomes. I like the idea of having something hands-on that the children can touch and which gives them a visual reference. Listening to my fellow students discuss their artifacts made me realize how many things around us have a place in social studies. I like my artifact. I'm sure there would be lots of humour in the lessons. I can't wait to try this out and hear their many ideas.

Toni chose her grandfather's Orange Lodge golden metal cuff links. In related activities, children are given an opportunity to develop an awareness of cultural and social evolution within their own society, they will be able to identify and compare the dress and social practices of turn of the century life with those of present society.

Children might wonder: How were cuff links used? When were they used? Who would use them? Were they common possessions? What does the design mean? Who were and were not members of lodges and organizations? Other discussion might explore outfits for special occasions. What was everyday life like for children?

Toni wrote the following poems based on her chosen artifact

Clerihew

Grandfather Holley
Head of the family folly
A butcher's life was what he tried,
His Orange Lodge cuff links wore with pride

Haiku

Like golden cuff links
Two autumn leaves
dress each side
of the branch's tip

After the poetry was presented by all students, one remarked:

I thoroughly enjoyed the poetry presentations by my peers today. The laughter, activity and level of creative thought were delightful. Truly this is the magic of poetry. I hope that I will be able to create such an atmosphere in my language arts class.

Conclusion

"Because it is not possible to stand aside from participation until we know what we are doing, it is essential to find styles of acting that accept ambiguity and allow for learning along the way." (Bateson, 1994. p. 235)

We have gone from strength to strength, and the students seemed to have greater confidence in themselves. Greater participation was transferred into classroom use through creativity in ourselves and our students. Students surprised themselves, were not unduly stressed and anxious, and delighted in each other's creations. All of us are better able to live in uncertainty, ambiguity and complexity and are open to exploration, surprise, and adventure through unfolding possibilities, constructing continuity within ambiguity. We better understand the importance of maintaining the integrity of our subject areas and providing opportunities for the students to engage in their own learning. In addition, we have found a process that creates the time necessary for the students to construct meaning and understanding and gives them an opportunity to make their own connections from their experiential learning. Through collaboration and innovation we have reduced some of the pressure in an often fragmented, demanding, and hurried year of professional studies.

References

- Aoki, T. (1991). Sonare and videre: a story, three echoes and a lingering note. In *Inspiriting curriculum and pedagogy: Talks to teachers*. University of Alberta: Department of Secondary Education.
- Aoki, T. (1991). *Voices of Teaching Monograph, 2*. Vancouver, B.C.: Teachers Federation.
- Baird, J. R. (1992). Collaborative reflection, systemic enquiry, better teaching. In T. Russell and Hugh Munby (Eds). *Teachers and teaching*. Bristol, PA: Falmer Press.
- Bateson, M. C. (1994). *Peripheral visions*. New York: Harper Collins Publishers, Inc.
- Newman, J. (1991). *Interwoven conversations*. Toronto: Ontario Institute for Studies in Education.
- Patterson, L., C. Santa, C. Short and K. Smith (Eds.). (1993). *Teachers are researchers: Reflection and action*. Newark, Delaware: International Reading Association.
- Weiler, K. (1988). *Women teaching for change gender, class and power*. New York: Bergin and Garvey Publishers.

Sight-Singing Revisited: An Ethnographic Account of a Musicianship Methods Class

Moira Szabo

The purpose of this study was to examine a musicianship methods class within a collegiate music teacher education program. Information gleaned from this investigation will furnish music teachers and university instructors with information that could increase the efficiency of their instructional output.

Sight-singing, defined as the ability to directly translate music notation into vocal sound unaided by a musical instrument, is a skill that is required in undergraduate music programs throughout the United States and Canada (NASM, 1994). As well, the learning and teaching of this skill has long been of interest to kindergarten through secondary choral and vocal music educators. Many college and university music majors, however, have had little sight-singing training prior to their collegiate course work.

In a review of major surveys conducted over the last two decades of high school choral programs, Dwiggin (1993) found that the majority of high school choral directors "rely heavily on rote procedures for teaching music" (p.10). Due to the pressure of meeting performance deadlines and the uncertainty regarding appropriate methodology, choral conductors often neglect the task of teaching each new generation to read music (Smith, 1989). This lack of emphasis given to sight-singing at the secondary level means that many collegiate students of music are ill-prepared for courses in musicianship training. Moreover, since the development of sight-singing and ear-training skills is often incorporated into theory and analysis courses, the amount of time given over to skill development within this framework is questionable. Where sight-singing and ear-training are given status separate from theory courses, instruction is often relegated to teaching assistants who have much knowledge about music theory but often little teaching experience. In many undergraduate programs, knowledge of the theoretical dimensions of music seems to override the importance of knowledge of practical teaching skills.

Since sight-singing is considered to be a critical musical skill and since

gogy and student perceptions warrants investigation. If prospective teachers are given neither adequate training in sight-singing nor pedagogic procedures for teaching this skill (Daniels, 1987), it is unrealistic to expect that they will emphasize in their future teaching what was neglected as part of their own musical background. Daniels (1986) declared: "Chorus teachers who have not yet attempted to teach sight-reading in the past would be, presumably, much more likely to do so if a clearer understanding existed among music educators as to the most effective method for teaching chorus students to read music" (p. 280).

Musicianship at the university level typically consists of a sight-singing component, ear-training, and skill development in error detection. Students are provided with opportunities to sight-sing tunes from selected sight-singing series, take down melodic dictation, and listen to examples of recorded music with accompanying score in order to detect errors.

The purpose of this paper is to investigate a musicianship class within a collegiate music teacher education program in order to discover the answers to the following questions:

- What are the components of a musicianship class for music education majors?
- What instructional strategies are employed in sight-singing activities?
- How do students enrolled in musicianship classes perceive their training?
- What difficulties do students experience? Why?

The answers to these questions can furnish K-12 choral and vocal teachers and collegiate instructors of musicianship classes with important information that could contribute to the efficiency and quality of their instructional output. More effective training of pre-service teachers in musicianship skills can produce prospective music educators who are better able to serve the music education community at large and, most importantly, the children and youth in their charge.

Method

According to Nettl (1995) and Kingsbury (1988), students within schools of music form distinct musical cultures worthy of study. It can therefore be stipulated that students enrolled in a class within a school of music also constitute a musical culture. This study examines a culture of music students and their present and previous instructors within a musicianship class.

ic study. This large university is situated in the middle of a metropolitan area in the Pacific Northwest. The School of Music houses of two hundred sixty undergraduate music education majors.

MUSED 303 is the last level of three consecutive courses in musicianship skills development, which devoted more attention to the sight-singing component than had the previous two levels. The instructor of the class had a keen, personal interest in the development of this skill. At the time the present study was in progress, he was involved in his own research on the effect of regular individual testing of sight-singing on the improvement of sight-singing skills in high school choral students. The fact that such emphasis was given to this skill provided the investigator with an ideal context to discover the answers to the questions posed.

During a time frame of eight weeks in the spring quarter of 1995, nine, fifty-minute classes were observed. Copious notes were taken on method of instruction, materials, and student and instructor behaviour. There were thirteen students enrolled in the course, four of whom acted as key informants. Students A, B and C were wind and brass instrumentalists. Student D was a percussion player.

Data was gathered through twenty-five minute structured interviews with each informant. The purpose of the interviews was to gather information on student perceptions of their training related to musicianship skill acquisition and pedagogy. Questions were posed in order to determine what difficulties and successes students were experiencing. Two interviews were also conducted with the instructor to gain to discover his perceptions of student performance. Two professors from the Music Theory Department were also interviewed to ascertain the content of their programs and their experiences with the teaching of aural skills courses. Ethnographic interview and observational techniques and methods of data analysis were based on those espoused by Spradley (1979; 1980). Data triangulation followed the model provided by Denzin (1978). Interviews of all informants were audio-taped and later transcribed for data analysis.

Interpretations

Course Content

The content of the observed classes was varied. Classes throughout the ten weeks consisted of three principle activities.

Group Sight-singing and Solo Sight-singing of Pre-assigned Material

Equal time was allotted for solo sight-singing and group reading in this class. The instructor believes in the value of solo singing and playing. "It is a good idea," he said, "to have them sing [and play] solo. It has come to my attention that this is where push comes to shove." He quoted a student's casual remark made after the mid-term proficiency test: "Boy it is different when you have to do it by yourself. I thought I was doing really well until I had to do it [sight-sing] by myself." Student D stated a similar idea;

I could sing the exercises with the group but then all of a sudden if I had to sing it by myself I couldn't do it. I realized that I was listening to other people. I could almost just listen a split second behind everyone else and sing along.

Middleton (1984) confirms these conclusions. She writes, "Although some choirs may seem to sight-read well as a group, individual sight-reading abilities often demonstrate a hesitant, inaccurate and faltering capacity." The instructor believes that if students are asked to sing alone on a regular basis they approach the task differently than as a group member. There is no doubt that the psychological demands of sight-singing, in front of one's classmates, will motivate students to practice more diligently. Practise is the key component of skill building.

Demonstrations Given by the Instructor to Model the Teaching Procedure for Each of the Two Student Teaching Assignments

Students were expected to teach two sight-singing lessons within the ten week period. The instructor was very consistent in providing modelling of the procedural steps for teaching a sight-singing lesson. Before students began their lesson planning he usually gave two or three demonstrations. Expectations were very clear. The importance of a consistent approach through sequentially organized material was stressed through regular reminders and through the instructor's modelling. The instructor stated:

When I want people to teach in class I try to give them a couple of models [base]. They need this information band that never changes. Although the model is not one on which to base creativity, even with in that people have done some fun [creative] stuff.

Modelling has been proven a more effective teaching technique than either the written or the spoken word (Rosenthal, 1984). The provision of demonstrations to serve as models allows students a greater opportunity to achieve a successful teaching performance. This sets them up

When asked about the value of student teaching assignments, Student A responded succinctly, "It makes me practise more." He went on to say that, "A lot of people don't know something until they have to tell someone else. Until they go, 'Oh I have to explain this to you!'" This is indicative of the fact that students do think differently about the material of the course when they are asked to prepare to teach it. Student B suggests that, "There is a sense of concentration that comes into it when I am preparing for something like that [teaching a lesson]." Having to teach can put pressure on students to devote more time to practise.

John Comenius, a seventeenth century advocate of the teacher/learner role, states in his *Didactica Magna*, "The saying, 'He who teaches others teaches himself' is very true, not only because constant repetition impresses a fact indelibly on the mind, but because the process of teaching in itself gives a deeper insight into the subject taught" (Gartner, Kohler & Riessman, 1971), pp. 14-15. The teaching process can result in students becoming more grounded in what it is they teach. In the case of teaching a lesson in sight-singing, students become engaged in thought processes that take their aural perceptions to a deeper level than would be the case without this experience.

Proficiency Tests

Two proficiency tests were given: A mid-term in which individuals were tested on sight-singing and keyboard skills and a final proficiency exam that included individual tests on sight-singing in class as well as private testing of keyboard and guitar skills. The instructor believed in the value of individual sight-singing testing for pedagogical as much as assessment value. "Going through the test should be a learning experience. You learn something by taking the test. My primary interest is that taking the test teaches them how to sight-sing". Student D stated, "I just stuck it [sight-singing] out, and just being forced to do it and being tested on it does make the difference." This seems to suggest that the combination of the test as a learning situation and the test as a catalyst for more diligent practice improved his performance. But testing does not motivate everyone in the same way. Student B responded to the questions 'Do you practice a lot?' and 'Does testing motivate you to practise?' with "Regularly" and "I didn't practise for today ['s in-class test]".

Student Perceptions of Training

Solfege System

There are a number of solfege systems that are used in Schools of Music the world. At Mt. Rainier students were exposed to the move-

able *do* and the fixed *do* systems. In the moveable system the first degree of the scale *do* corresponds to the key note. For example, in the key of G, the note G would be *do* and the rest of the syllables *re*, *mi*, *fa*, etc. would follow in sequence. In the fixed system C is always *do*.

Sight-singing is by nature a very complex activity. One has to (1) find the key, (2) aurally orientate towards the tonic triad; *do*, *mi*, *so*, (3) find the starting note, (4) apply solfege syllables while simultaneously translating the rhythmic code, gesturing the appropriate handsign, and pre-hearing and intonating the precise intervallic relationships. "Getting it all together" in one system is challenging enough. Student D had learned both systems at a previous college. His response to the question regarding his experience was, "Well we used *fixed do* with C always being *do* and in other classes we used *moveable do* so I just never really grasped the solfege."

Switching from one system to another can be quite disorientating for some students. Herman (1988) wrote, "The two most important ingredients of teaching sight-reading (sight-singing) are consistency of approach and spending time (practice)" (p. 36). The instructor stated a similar opinion on the matter: "I'm pretty convinced that neither system nor materials matter as much as consistency of approach." A professor from the Music Theory Department expressed the same idea in speaking about the method of choice. "It doesn't really matter so much to me [whether one uses *fixed do* or *moveable do*]. What matters is whether or not we are going to tell them that C is not C all over the place." These comments indicate that beginning students might make more progress by staying with one system until they achieve a reasonable degree of sight-singing competence. Confusion from a mixed methods approach might stand in the way of progress.

Solfege Syllables

By the end of the quarter Student C was convinced that his sight-singing had improved due to the consistent application of the syllables to the scale tones. He stated:

It has improved because I have been practicing solfege syllables. That has helped me. I never claimed to be a singer. I am low level in terms of skills. It's [use of syllables] all pretty new to me. The intervals come with the syllables. I have learned the syllables with specific intervals. I see a C-F and that's a "so-do" [in the key of F]. That really has improved my reading.

This explanation sums up, in simple language, the very essence of the syllabic *moveable do* system. The informant has given a lot of information in this one statement. He is a beginner, lacking in confidence in his

singing ability. He is, however, conscientious and through practice has clued into the meaning of tonal relationships within the diatonic scale. A third professor from the Department of Music Theory at Mt. Rainier noted that:

One of the best things we can do for students is to give them a sense of scale degree function. Students need to experience the tendencies of notes to behave in certain ways. The note so wants to resolve to do. This is its function. This is its expressive quality.

Fluent sight-singing is dependent on the ability to pre-hear the tendencies of each of the tones of the scale. This professor further stated:

Those musicians who understand that what they are producing is not only pitches and durations but pre-hearing the meaning of the music and projecting that when they play or sing are the musicians who will understand the connections through music theory and sight-singing.

Students need to feel the *will of the tones* in order to anticipate the placement of the next note in the series. Student A ventured to say that sight-singing has improved intonation and tone quality on his wind instrument. He remarked that, "When you sing it you have to think about where the pitch is going." Another wind player, Student B, echoed this thought. He believed that sight-singing is an important skill. When asked to explain why he responded:

To improve intonation and tone quality because the music comes from doing it in your head. There are many band students that just push down their buttons and blow air. Maybe the right note comes out and maybe it doesn't. And whatever sound the instrument makes is fine. When you sing it, you think about where your pitch is going. When it is off you adjust. The sight-reading really does help. To me there is such an internal process.

This student is learning to hear the music in his head, an important dimension of musicianship. Gordon (1980) refers to this as 'audiation,' the ability to hear the music when it is not physically present. Music students need to develop the ability to internally hear the notes of the scale in relation to one another. It is important to be in touch with *do* the tonal center. The instructor often reminds his students to track *do* with a reminder like, "If you are singing along and get off track sing *do* and get back on." Every time students sight-sing a melody they sing the tonic chord; *do, mi, so, mi, do* to help them internalize these important tonal relationships.

Handsigns

Handsigns are specific spatial gestures that are associated with the of the scale. When students sing a certain pitch, they must also

show the matching sign. All informants expressed negative attitudes towards the use of handsigns used to accompany their own sight-singing. They found them distracting. This is borne out by the researcher's many observations of the class. There were only a few students in this class who were able to sight-sing a piece and use correct handsigns from beginning to end. Another few managed to fumble their way through. Students often sang the correct syllables and tones but the accompanying handsigns sometimes did not correspond to what they were singing.

There are a number of explanations why handsigns can be a hindrance to sight-singing. Students might not have practiced them enough on their own in order to internalize them. Perhaps there are too many things to think about. Some students were still struggling with applying the correct solfege syllable to the written notation. There might be too many new things to learn at once when first beginning to use this method.

Handsigns were intended to be introduced gradually. According to the widely practiced Kodaly method, no new sign is introduced until the previously learned signs are mastered (Choksy, 1988). Consideration needs to be given to the gradual acquisition of handsigns when teaching beginning sight-singing classes. There is undoubtedly a need for further investigation into the most effective introduction to and use of handsigns.

Conclusion

This excursion into the setting of a musicianship methods class has not turned up any surprising results. Much information on the subject of sight-singing is found in the music education research literature that attests to the effectiveness (or lack of effectiveness) of many of the techniques used in this study. The data from this excursion reveal nothing new about the subject. But the experience of revisiting through experience of the actual inhabitants of the musical culture, can allow music educators an opportunity to reflect on their existing teaching practices and refine, reduce, and restructure accordingly.

The idea of students teaching lessons to other students in the skill that they themselves are learning can have direct implications for instructors of collegiate musicianship courses aimed at pre-service teachers. Interesting questions can be raised to determine just how effective this approach really is. Does the act of teaching a skill that one is learning internalize the existing knowledge more readily? To what extent are music education students more motivated to learn when they know that they are learning has immediate applicability to their chosen pro-

fession? How does their thinking regarding the usefulness of the skill change? Future excursions into similar settings might address these concerns.

References

- Choksy, L. (1988). *The Kodaly Method*. Englewood Cliffs, New Jersey: Prentice Hall.
- Daniels, R. D. (1986). Relationships among selected factors and the sight reading ability of high school mixed choirs. *Journal of Research in Music Education*, 34, 279-289.
- Denzin, N.K. (1978). *The Research Act: A Theoretical Introduction to Sociological Methods*. New York: McGraw-Hill.
- Dwiggins, R. R. (1993). Teaching sight-reading in the high school chorus. *The Applications of Research in Music Education*.
- Gartner, A., Kohler, M.C. & Riessman, F. (1971). *Children Teach Children: Learning by Teaching*. New York: Harper and Row.
- Heffernan, C. W. (1968). *Teaching Children to Read Music*. New York: Apple Century Crofts.
- Herman, S. (1988). Unlocking the potential of junior high choirs. *Music Educator's Journal*, 75 (4), 33-41.
- Kingsbury, H. (1988). *Music, Talent and Performance: A Conservatory Cultural System*. Philadelphia: Temple University Press.
- Middleton, J. (1984). Developing choral reading skills. *Music Educator's Journal*, 70 (7), 29-32.
- National Association of Schools of Music (NASM) (1994). *1993-1994 Handbook*. Reston, VA: National Association of Schools of Music.
- Nettl, B. (1995). *Heartland Excursions*. Champaign-Urbana: University of Illinois Press.
- Rosenthal, R. (1984). The relative effects of guided model, model only, guide only, and practice only treatments on the accuracy of advanced instrumentalists' musical performance. *Journal of Research in Music Education*, 32, 265-273.
- Smith, T. A. (1987). Solmization: a tonic for healthy musicianship. *The Choral Journal*, 18 (1), 16-23.
- Spradley, J. P. (1979). *The Ethnographic Interview*. Chicago: Holt, Winston & Rinehart.
- Spradley, J. P. (1980). *Participant Observation*. Chicago: Holt, Winston & Rinehart.
- Watkins, A. & Hughes, M. (1986). The effect of an accompanying situation on the improvement of students' sight-reading skills. *Psychology of Music*, 14 (2), 97-110.

Memories of Music in Elementary School: A Study in Sonata Form

Inez St Dennis

This qualitative study used data provided in the reflective writings of Music Education students. The data indicates that university classes in music education play a major role in helping students overcome some of the fears about teaching music.

The comments in this paper are related to the delivery of a full year Music Education course for elementary classroom teachers. This survey course is intended to provide preservice teachers with the skills and confidence necessary for them to include music in their classroom programmes. At the very least this course will acquaint them with the characteristics of a good music programme/teacher so that they will recognize and support an existing music programme in the schools where they teach.

Non-threatening group music activities and games that are "fun" can help students to relax and become more receptive to the idea that they will play an important role in the music education of their students. Overcoming an initial fear of the subject, they can gain the confidence necessary to improve their own musicianship. Enhancing their teaching abilities is of paramount importance and a major goal of the course. By acknowledging and understanding their fears many students are able to confront and deal with them.

In order to help the students recognize the implications of their backgrounds for their personal growth as adult music learners, and further to examine the implications of their feelings for their future as classroom teachers, two reflective tasks were set. Assignment number one required the students to interview three other people about their recollections of music in elementary school, and then to reflect and compare their own experiences with those of the people they had interviewed. The second assignment required that the students read, review, and reflect on an article entitled, *Do We Have To Sing? Factors Affecting Elementary Education Majors Attitudes Toward Singing* (Apfelstadt, 1989).

Students' submissions were candid and revealing. Students were reveal a lot about themselves to me through their reflections,

without fear of exposure to their peers, which helped them to participate more fully in class activities and feel more comfortable in general. It became apparent that reflective writing can assist students in overcoming fears related to the learning and teaching of music.

An unfamiliarity with reflection as a teaching strategy led to a search of related literature. Although reflective practices are very current, they are certainly not new. Dewey (1933) characterizes reflection as a specialized form of thinking:

The function of reflective thought is, therefore, to transform a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort, into a situation that is clear, coherent, settled, harmonious (pp.100-101).

Dewey's characterization certainly matched what was hoped the students might begin to uncover for themselves by examining their experiences. However, would this examination of personal experiences assist the students with their quest to become *musically educated*? Does reflective thought have value as a teaching/learning strategy?

Current literature supports knowledge of self and reflective practices as viable and necessary components of educational practice. Howard Gardner (1983) includes in his theory of multiple intelligences intrapersonal knowledge. He proposes that knowledge of self and others is, "... a higher level, a more integrated form of intelligence, one more at the behest of the culture and of historical factors, one more truly emergent, one that ultimately comes to control and to regulate more 'primary orders' of intelligence." (p.274). Gardner's notion of intrapersonal knowledge combined with Dewey's statement about reflective thought implies that looking at one's experiences can be a very good place to start.

A preservice teacher spoke of her discovery of the nature of teaching in the book *Through Preservice Teachers' Eyes* (1994):

I started out thinking that teaching was like following a formula. My formal education courses would give me that formula, and I would then apply it in the classroom. I found out that this procedure is not true. Teaching is a process of discovering yourself; picking through the theories and methods that work for you; developing some theories and methods of your own and going out into the field and using them;...In short, teaching is a process of giving your classroom its own personal character that fosters students' learning. You cannot expect to teach others until you know yourself. With this in mind, learning about teaching is a never-ending process. (p.2)

Schön has been a most influential writer in the field of reflection in education. His book, *The Reflective Practitioner* (1983) contributed to a new era in teacher education in which approaches such as action

research, ethnography, and journal writing have gained popularity and credibility as part of preservice programmes. Schön states that learning a profession, such as teaching carries a double burden:

The paradox of learning a really new competence is this: that a student cannot at first understand what he needs to learn, can only learn it by educating himself through self-discovery, and can only educate himself by beginning to do what he does not yet understand (p. 85).

This seems to be a particularly cogent statement in terms of a survey course since many students seldom believe that they will have any influence or power over the music education of their own students. A great many believe that what they learn in the university class will be of little or no use to them, but rather that it is a hoop through which they must jump in order to become a teacher. The cultural background for many people is that music is a talent that some are born with, you either have it or not. One major goal of the course is to help the students realize their capacity to participate in music, by doing it whether or not understanding of the process precedes the doing.

Schön asserts that the development of competence in a given field is not enough in and of itself, but rather what is important is the combination of competence and reflective thinking. One of the cornerstones of Schön's work is "knowledge-in-action", a way of describing thought processes used by practitioners. Decision-making is not always a conscious activity. As teachers we often make decisions intuitively, based on past experience in particular situations. The first step in helping students enrolled in this course to become critical pedagogues was to have them write reflective journals about their own experience with elementary music education. The purpose was to make conscious their past experiences.

Rose (1994) suggests that music education is a natural setting for "knowledge-in-action" or critical pedagogy because, "Inherent in music and the arts in general, are ways of knowing ourselves and our world so that we can form a basis for the development of social and cultural consciousness and the production of culture" (p.138). Empowerment of students and teachers and the need to address discrepancies amongst personal, school, and university cultures, are further reasons for encouraging preservice teachers to develop "knowledge-in-action" skills. Colwell (1992) encourages music educators to become more active in qualitative research by suggesting that, "Music teaching and the classroom teacher is an area that demands much more attention than it heretofore has received" (p.690).

ting, rationale, precedent and the motivation for the study were
 Now the question was how to approach the study. A tendency to

think of and perceive things in musical terms came into play. This study lent itself very nicely to Sonata Form, which has three sections: Exposition, Development, and Recapitulation. For the purposes of this paper, the three movements of Sonata Form were defined in the following manner:

Exposition: The opening section containing the setting, the review of the literature and the method.

Development: The themes found in the students' writing, and examples of the themes in the students' 'voices'.

Recapitulation: The conclusion and comparison with a similar study done in Manitoba (Morin, 1995).

Development

The themes that emerged in the students' writing were:

- Empowerment/Disempowerment
- Acceptance/Non-acceptance
- Sense of community
- Family influences
- Social/Cultural Context
- Teacher Enthusiasm and Knowledge

The identification of these themes was a long process of reading and re-reading the students' work. At first reading, negative and positive experiences figured prominently. Grouping the experiences as positive or negative, and then examining them for commonalities exposed another layer of meaning. The context, be it home, school or community became dominant at this level of examination. Sharing the voices of the students with colleagues in a research seminar, provided an opportunity to be more conscious of the plaintiff voices of personal concern and meaning. The themes of acceptance/rejection, empowerment and disempowerment resonated through the writing:

I wanted so badly to play that xylophone! I was in elementary school and the teacher was selecting children to play. I wriggled in anticipation of being chosen. I was not chosen to play, in fact I wasn't chosen during my next music class either. I recall being left with the unmistakable feeling that I must not be good enough to play that xylophone, leading me to conclude that I must not be talented in music. This was hard for me to accept, as I had already developed a keen appreciation of music, followed by the desire to perform it. This is my first recollection of my elementary music education.

The need for acceptance, the sense of rejection and disempowerment permeated this student's initial music experiences. It is somewhat shocking that such a vivid memory has haunted an intelligent and competent young woman for so many years. This statement crystallized the determination to continue using journal responses and reflection in order to unlock more of the memories that appeared to haunt my students.

Other statements supporting the themes of acceptance/non-acceptance, and empowerment/disempowerment included:

The negative experiences were when those who were already adept at an activity received all the attention and opportunity, and those of us who were not, sat on the sidelines and watched.

Landing the page turner job for my elementary school choir, and not a spot in the choir delivered a strong message that I could not sing. I believed this wholeheartedly, and I was not resilient enough to overcome that disappointment. As a result I sing apologetically.

Experiences that helped the students to feel accepted and valued by their teachers, and portrayed musical experiences in a positive light were reported.

As a child I received a lot of positive feedback from my instructors in regards to music being an exciting part of my education. I did not think I had a good voice, but with lots of encouragement and practice I became more successful and less threatened by my voice.

Lorraine feels that her music program was wonderful, as she learned much regarding music and theory that is still with her today. Yet more importantly the program was full of joy as they sang songs that made Lorraine feel tingly inside.

The social and cultural context of music was a significant factor in some students perception of the role of music education in their lives.

It is obvious that through the social benefits that music has given me, my life has been considerably richer. I will continue to use it as a resource both for pleasure and for serious study.

I lived in Japan for about five years. In Japan music is much more of a student's life and it seemed that adults had much more confidence than Canadian adults. I believe that one of the reasons for this is the presence of Karaoke. People, both young and old sing in what they call Karaoke boxes ... They take turns singing their favourite songs in front of their peers. I noticed how much encouragement there is. Their peers clap along and cheer ...

Family support and a positive, encouraging home environment or lack thereof, were themes in many students' writing.

My mother has a very poor concept of her singing abilities and consequently singing was not part of family life. She wanted us to have

music in our lives because she did not, so we went to piano lessons and were encouraged to take band. Mom's poor self image in singing influenced us despite her desire to do better by us musically.

I remember the day when my dad showed me how to work the record player all by myself! What a joyous day that was - I had the worlds of Frank Sinatra and Simon and Garfunkel, to Raffi and many other children's music artists at my fingertips.

With music being such a joyous part of my childhood, I have grown up having little or no hesitation when it comes time to sing. In fact, many of my 'shower-time tunes' are the same cheerful songs I sang as a child.

The evocation of school memories inevitably brings to the fore influential people. In many cases teachers had a powerful effect, either negative or positive. Music teachers who were positive and encouraging figured prominently in the students' writing. The memories of these teachers had strong implications for the preservice teachers' preparation.

He reflected that his teachers in general were very enthusiastic about teaching music. This included enthusiasm for enjoyment sake, and enthusiasm in a very real educational sense.

I believe it was thought by our teachers that music and the learning of it was a very important part of our growing up, whether we pursued it as an occupation or just encountered it as listeners throughout our every day lives ...

The nuns were clear in their expectations of the students, but more importantly the nuns loved what they were doing. The instructors' enthusiasm was genuinely catching. The students were encouraged to be their personal best and with this one cause in mind they made beautiful music together.

Recapitulation

The process of remembering past experiences can provide students with a timely opportunity to consider the implications of their own training and attitudes toward music upon the students they will teach. In almost every instance, the students indicated that they had very few, if any memories of their elementary school music experiences until they began to interview other people, prompting their own memories. The themes that appeared across the writings have come up repeatedly in class discussions. They form a large part of the students' approach to learning music now as adults, and enlarging their repertoire of musical knowledge to better serve their future students. Some of the mystique and fears dissipated and it became apparent that the students were not only more receptive, but they developed a clearer understanding of the act of teaching as problem solving, not following a formula.

Manitoba, presented a study that was both qualitative and quantitative, and included the voices of preservice teachers. His study was much larger than this current investigation and included an examination of the value of music education in the preservice programme. However, the post test interviews contained themes similar to those revealed by the students in this sample. The value of reflective practices and "knowledge-in-action" through music education was supported. One of the Manitoba student's reflection can be used to encapsulate the essence of the teacher education process.

I have begun to see that music may work to reinforce ideas, to bring a culture to life, to invoke imagination in art or in writing, and to provide an experience which goes beyond the listening, speaking, reading, writing many subjects have been more traditionally limited to. This course has offered avenues in which music may be incorporated to better the learning experience of the child through,

- 1) more profound learning activities in content areas, and
- 2) through providing music education outside of the 'music classroom' experience.

Before beginning the music course I thought that I may be embarrassed because I know so little about music, and I wasn't looking forward to taking it ... Instead, the class activities were fun, and provided us with a lot of useful information ... (p.8).

As we move beyond developing musicianship and approach planning for teaching music in the classroom, it is hoped that many or all students will develop the confidence to plan lessons focusing on their strengths. The observations they made in their initial reflective assignments will assist them to feel that they, too, may contribute in a meaningful way to their students' music learning.

References

- Clift, R., Houston, W., Pugach, M. (Eds.). (1990). *Encouraging reflective practice in education: An analysis of issues and programs*. New York: Teachers College Press.
- Colwell, R. (Ed.). (1992). *Handbook of research on music teaching and learning*. New York: Schirmer Books.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Chicago: D.C. Heath.
- Doyle, C., Kennedy, W., Ludlow, K., Rose A., Singh, A. (1994). *Toward building a reflective and critical internship program (The R C I P Model): Theory and practice*. St. John's, Nfld: Memorial University.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Harper Collins Publishers.
- Grimmet, P., and Erickson, G. (Eds.). (1988). *Reflection in teacher education*. Vancouver, B.C.: Pacific Educational Press, UBC.
- Knowles, G., Cole, A., Presswood, C. (1994). *Through preservice teachers' eyes: Exploring field experiences through narrative and inquiry*. New York: MacMillan College Pub. Co.
- Morin, F. (1995). The effects of a music course and student teaching on early years/elementary pre-service teachers' orientation toward music and teaching. *Canadian Journal of Research In Music Education*, 36, (7), 5-12.
- Riessman, C. (1993). *Narrative analysis*. Newbury Park, CA.: Sage Publications Inc.
- Schön, D. A. (1983). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco: Jossey-Bass.

A Study of the Cohort Group Model of Delivering Pre-service Teacher Education: The First Year Results

Lily Dyson, Betty Hanley, and Carole Miller

This paper summarizes the nature of a study to evaluate the effect of a cohort model as a method of training pre-service teachers. Implications for programs are suggested along with recommendations for future research.

The search for an effective model of delivering instruction in higher education is a continuous endeavor and seems particularly pertinent in the face of the current public demand for educational reform and accountability (Lewington & Orpwood, 1993). Traditional instruction has focused on individualized learning in which students select their own courses and learn independently. It does not inherently encourage learner-centered and cooperative learning. At the present, instructional emphasis is increasingly moving toward a learner-centered and cooperative model of delivery of education (American Psychological Association, 1994; Walker & Lambert, 1995). The cohort group model is an alternative approach for instructional delivery.

A cohort group in higher education refers to the grouping of students who share a set of common courses or learning activities for an extended period of time (Barnett & Muse, 1993). A frequently stated purpose of a cohort group is to create a supportive learning environment (Barnett & Muse, 1993). Cohort groups are well suited to adult students as their learning styles and needs are characterized by affiliation, mutual learning, and control over educational decision-making (Barnett & Muse, 1993). Moreover, in a cohort group, students are given opportunities to respond to the challenges of learning in their own way through application in the work environment (Goodlad, 1986). It is no wonder that the cohort group model has been increasingly utilized in professional schools in such disciplines as business, medicine, and education (Barnett & Muse, 1993).

An opportunity to share would seem to make cohort groups particularly appropriate for the training of teachers. "The absence of a cohort experience in teacher education means prospective teachers have little opportunity to share their perceptions of teaching...and to observe one in the classroom" (Weinstein, 1988, p. 33). To date the cohort

group model has been reported to be successfully employed in the training of educational administrators (Barnett & Muse, 1993). However, data regarding its application to other areas of education remains limited.

Cohort groups in education are thought to benefit students and faculty. The benefit for students can include improved academic performance (Barnett & Muse, 1993); a wider range of ideas generated from learning together (Howey & Zimpher, 1989); and greater emotional support and social affiliation (Barnett & Muse, 1993; Howey & Zimpher, 1989; Kent State University, 1989; Wisconsin Center for Education Research, 1988). The organizational structure of a cohort group can permit students to engage in decision-making and to take some ownership of the operation of the program (Barnett & Muse, 1993). Possible negative experiences of cohort groups have also been suggested. In some cases, the group may be disrupted by a few individual members; in others, there may be the undesirable development of an "us against them" mentality (Etheridge, 1986).

Empirical data on the effects of cohort groups however, are lacking. The increased prevalent practice of adopting this model and its possible potential as a viable instructional delivery model in higher education, suggests that the cohort group model requires careful examination. Information on the effect of the model on the academic performance, social relationship, and feeling of self-control as an adult learner could assist in applying this model to a particular context.

The study will examine the effect of the cohort group model on the academic and social adjustment of new students in education. In this report the results of the first phase of the study are described in terms of the participants' perceived academic performance, adjustment to university life, social support, and self-efficacy.

Method

Participants

For the year under investigation, forty-seven students (thirteen male; thirty-four female) were enrolled in the elementary program of the Faculty of Education. The cohort group consisted of twenty-four students and the non-cohort group of twenty-three students. The cohort group was enrolled in five courses as a group and shared the courses for two semesters. These common year two core courses included AE 204 (Art Education), DE204 (Drama Education), ME204 (Music Education), PE247 (Physical Education), and ED-D305 (Child Education). Five different instructors taught these courses. The non-

cohort group of students selected their own courses for the one year period.

Procedure

Cohort participants were recruited from students entering Year two (the first year of a program leading to a B. Ed and teaching certification) in the Faculty of Education at the University of Victoria in 1995-1996. After their acceptance in the Faculty and prior to beginning the term, eligible students (those who required the appropriate courses) received a letter describing the nature of the study and were invited to take part in the study as cohort members. Those agreeing to take part were asked to return a signed consent form.

The non-cohort (control) group members were recruited in September from non-cohort sections of Year two classes. Students in the control group selected their own course and did not necessarily share classes.

This project consists of two stages. The focus of this paper is on the first stage. In Stage one, participants in both groups were administered assessment tools and were interviewed regarding their first month of adjustment to the new program. In Stage two administration of the same evaluation tools and interview will be repeated at the end of the school term. In addition, grades in the core course and grade point average (GPA) will be compared across groups.

Special treatments were not provided to either group except that the cohort group of students shared a common set of five courses. The courses were taught by five different instructors. The five instructors delivered the cohort courses in the same manner as they taught other sections of these courses. Special collaboration did not go beyond that which regularly occurs among Year two instructors who meet three times yearly to share ideas and experiences.

Instruments

Data collection from both groups included the following assessment scales:

1. **Perceived Academic Progress** (Dyson, 1996; adapted from Defour and Hirsch, 1990). This scale asks the respondents to rate their academic progress in relation to their peers.
2. **Perceived Social Support: Friends** (PSS-Fr) (Procidano & Heller, 1983). This scale measures "the extent to which an individual perceives that his/her needs for support, information, and feedback are fulfilled by friends" (Procidano & Heller, 1983, p. 23).

3. **The Self-efficacy Scale** (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982). This scale measures a person's beliefs and expectations for his/her ability to perform tasks and to deal with others successfully. These beliefs and expectations are referred to as self-efficacy by Bandura (1986).
4. **The Student Adaptation to College Questionnaire (SACQ)** (Baker & Bohdan, 1989). The SACQ is designed to assess student adjustment to college life.

Results

The results of the quantitative assessment are presented in this paper. The qualitative analysis of the interview data and a synthesis of both papers will be reported in a second article.

Perceived Academic Progress

In response to the question, "How well do you think you are doing," thirty-eight students in total, reported to be "above average" and eight "better than average." The results from both groups are shown in Table 1.

Table 1 How Well Do You Think You Are Doing by Cohort and Noncohort Group

	GROUP	
	Cohort	Noncohort
Above Average	19	19
Better Than Average	4	4
Missing data	1	0
Total	24	23

When asked, "How satisfied are you with your academic performance," the overwhelming majority of participants reported to be "very satisfied" or "fairly satisfied." The results from both groups are shown in Table 2.

Table 2 How Satisfied Are You with Your Academic Performance by Cohort and Noncohort Group

	GROUP	
	Cohort	Noncohort
Very Satisfied	6	1
Fairly Satisfied	15	21
Neutral	1	0
Dissatisfied	1	0
Missing data	1	1
Total	24	23

With regard to their progress, the majority (thirty-eight) reported to be "satisfied, on schedule or ahead." Only a very small minority reported to be "a bit behind" or "way behind" (Table 3).

Table 3 Your Progress by Cohort and Noncohort Group

	GROUP	
	Cohort	Noncohort
Way Behind	0	1
Bit Behind	2	5
On Schedule	17	16
Ahead	4	1
Missing	1	0
Total	24	23

Self-efficacy and Personal Social Support: Friends

Descriptive statistics for the cohort and non-cohort group on self-efficacy and personal social support are summarized in Table 4.

T-tests show no significant difference between the two groups on self-efficacy. Similarly, no statistical differences between the cohort and the non-cohort group were found on personal social support from friends.

Table 4 Means and Standard Deviation for Social Support, Self-efficacy, and Adaptation to College Life for the Cohort and Noncohort Group

Variable	GROUP			
	Cohort ($n = 24$)		Noncohort ($n = 23$)	
	Mean	SD	Mean	SD
Self-Efficacy	90.33	10.8	89.00	9.0
Perceived Support	12.16	2.6	12.4	1.9
Total Adaptation	479.5	54.2	471.6	46.7
Academic Adjustment	168.1	20.6	169.6	21.5
Social Adjustment	141.6	25.3	134.0	18.3
Personal-Emotional Adjustment	103.0	17.6	99.3	18.7
Attachment	116.7	10.6	117.1	7.4

Adaptation to College Life

Descriptive statistics for the cohort and the non-cohort group in general adaptation to college life are presented. No significant differences were found in t-tests on the total or sub-areas of the adaptation (Table 5).

Table 5 Correlations Between College Adaptation and Self-efficacy and Personal Social Support

	Self-efficacy	Social support
Total Adaptation	.67**	.56**
Academic Adjustment	.59**	.34*
Social Adjustment	.46**	.65**
Personal-Emotional Adjustment.	.54**	.32*
Attachment	.41**	.62**

* $p < .05$. ** $p < .01$.

Means and standard deviations of personal social support, adaptation to college life, and self-efficacy for the present sample and a selected sample from a university from the west coast of the U.S.A are reported in Table 6. The two samples are fairly compatible in all measures. The Canadian sample is higher than the American sample in all

Table 6 Means and Standard Deviation (SD) for the Total Current Sample and A Comparison Group

GROUP	CURRENT				COMPARISON		
	Mean	SD	N	Range	Mean	SD	N
Perceived Social Support	16.6	3.91	47	—	15.1	5.08	66 ^a
Total Adaptation	475.66	50.35	47	354-591	433.7	53.5	112 ^b
Academic Adaptation	168.91	20.85	47	125-211	147.8	20.5	112
Social	137.91	22.32	47	71-175	134.5	23.2	112
Personal-Emotional	101.21	18.08	47	57-132	91.1	16.0	112
Attachment	116.94	9.10	47	88-131	110.1	17.4	112
Self-efficacy	89.68	9.93	47	69-108	—	—	—

^a Based on Procidano & Heller (1983).

^b Based on Baker & Siryk (1989).

Discussion

A study of one stage of an educational delivery method in higher education is described. A selected list of characteristics of a cohort group model is compared with a non-cohort group model. Perceived academic performance, social support, self-efficacy, and adaptation to college life are investigated in students entering the elementary program in the Faculty of Education. A comparison of data at the beginning of fifth year indicated that no differences between the cohort and the non-cohort group in the measured perceived academic performance and experienced social adjustment areas. The results of this Canadian sample are also similar to those of an American sample drawn from a similar geographical area. All measured aspects of adaptation to college life for the sample of education students were related to self-efficacy, and feelings and experiences of social support from friends.

The results of this project suggest that at the entry to pre-service teacher programs, students who were in different instructional delivery models were not different from each other in such areas as adaptation to college life, self-efficacy, and social support. It would be of interest if discrepancy develops between the two groups over time as this may be an indication of the effect of an early experience in a cohort group on students' learning and social adjustment. The positive relationship between social support and self-efficacy as presently observed suggests the importance of these social aspects for adaptation to college life. To help students adapt to college life, social support networks and self-

References

- American Psychological Association Presidential Task Force (1994, March). *Learner-centered psychological principles: Guidelines for the teaching of educational psychology in teacher education programs*. Washington, D.C.: Author.
- Baker, R.W. & Siryk, B. (1989). *SACQ (Student adaptation to college questionnaire)*. Los Angeles, California: Western Psychological Services.
- Bandura, A. (1986). *Social foundations of thought and action: Social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barnett, B.G., & Muse, I.D. (1993). Cohort groups in educational administration: Promises and challenges. *Journal of School Leadership, 3*, July, 400-407.
- DeFour, D.C. & Hirsch, B.J. (1990). The adaptation of black graduate students: A social network approach. *American Journal of Community Psychology, 18* (3), 487-503.
- Dyson, L. (1996). *Perceived Academic Progress Scale*. University of Victoria, Victoria, British Columbia.
- Etheridge, C.P. (1986). *The students' perspective: MAT program cycle 1*. ERIC document, ED280838.
- Howey, K.R. & Zimpher, N.L. (1989). *Profiles of preservice teacher education: Inquiry into the nature of programs*. State University of New York Press.
- Kent State University, (1989). *Preparing Academically Talented Students for Teaching*. Final Report. ERIC document, ED307236.
- Lewington, J. & Orpwood, G. (1993). *Overdue assignment: Taking responsibility for Canada's schools*. Toronto: John Wiley & Sons
- Procidano, M.E. & Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. *American Journal of Community Psychology, 11*, 1-25.
- Sherer, M., Maddux, J.E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R.W. (1982). The Self-efficacy Scale: Construction and validation. *Psychological Reports, 51*, 663-671.
- Wisconsin Center for Education Research, (1988). *Preparing students to work effectively with diverse students in multicultural settings*. Final report. ERIC document ED304514.

The Collaborative Process of Reflection on Counsellor Development: A Case Study for Research and Practice

Anne Marshall and Trace Andersen

This research is a continuation of an earlier project in which themes of counselor development were identified. The results are discussed with regard to implications for counselor development and training.

As counsellor educators, we have long been intrigued with the idea of counsellor development. A look at the literature reveals several articles and books addressing the topic, one of the early ones being Hogan's 1964 paper on supervision issues. In the 1980's a number of models of counsellor development were proposed (Friedman & Kaslow, 1986; Hill, Charles and Reed, 1981; Loganbill, Hardy & Delworth, 1982; Stoltenberg, 1981; and Stoltenberg & Delworth, 1987). Some common elements are evident in these models. First, they present between three and five relatively discrete stages of counsellor development. Second, movement through the stages occurs in a generally linear fashion. Third, counsellor growth is most often described in the context of supervision or a supervisory relationship.

Although we agreed with the general suggestion of development over time, linear stage models do not accurately represent the experience of a large majority of our own students. Experiences and observations during our total of thirty years spent training counsellors have led us to conclude that counsellor trainees progress in a variety of ways, and are affected differently by a myriad of factors in their personal and professional lives. Moreover, we were struck by the emphasis on supervision in the literature. Although important, supervision is only one part of the learning environment of counsellor trainees.

Recently, two studies utilizing a qualitative approach have investigated counsellor development from the perspective of the counsellors themselves. Using a twenty-three-item semi-structured questionnaire, Skovholt & Ronnestad (1992) interviewed a cross-sectional sample of one hundred participants ranging from first year graduate students to practitioners with twenty-five years post-doctoral experience. From the interview data twenty developmental themes were extracted and coded in four categories: primary characteristics; process descrip-

tors; sources of influence; and secondary characteristics. These themes cover a broad range of factors that affect counsellor development over the span of a career. However, the authors describe the first year of graduate school as characterized by "increasingly externally oriented rigidity" (p. 508), with a widening gap between professional and personal functioning. In contrast, our experience has been that first year trainees have a dual focus on external and internal factors, and are attempting to integrate their professional and personal selves.

Sawatzky, Jevne & Clark (1994) asked nine doctoral level students what experiences in the doctoral internship had contributed significantly to their effectiveness as counsellors. Analysis of the interview data resulted in a cyclical model of counsellor development which was named "Becoming Empowered". There were four recurring sequential themes: experiencing dissonance; responding to dissonance; relating to supervision; and feeling empowered. This model, including the four main themes and related subthemes, portrays increasing effectiveness or competence. However, although not confined to supervision, the model is nevertheless limited to the internship context, and does not include personal factors that might be affecting the students' experience.

As part of our own research, we have investigated themes of development experienced by counsellor trainees in the first year of their Master's level graduate program (Marshall & Andersen, 1995). A single research question was used with five students from the same training cohort: "What is your experience of the process of becoming a counsellor?" A total of twenty-three themes and sub themes were extracted from the transcribed interviews. Similar to the Sawatzky et al. (1994) study, our students described "recurring themes" of development rather than linear stages. However, the themes were not always experienced in the same developmental sequence. Also, the students in our study included more personal themes in their narratives, for example, early helping experiences, the impact of personal growth, awareness of their own beliefs and values, and the importance of self-care.

To further investigate the occurrence of varying developmental themes in counsellor trainees, the original study was extended to include additional participants. For the purposes of this paper, a new collaborative step in the interview analysis process will be described, one that we believe is unique. It involves inviting a participant into the analysis process in an active and integrative manner, and has resulted in a significant shift in our understanding of counsellor trainee developmental process. This collaborative approach allows the trainees to become consciously involved in explicating their perspective on their own experience of growth.

Methodology

The present case study is part of a larger project on counsellor development initiated two years ago. The project involves several different sources of data from first year counselling graduate students: interviews, course journals, observations, and scores on a standardized measure of self-efficacy—the Counseling Self-Estimate Inventory (Larson, Suzuki, Gillespie, Potenza, Bechtel & Toulouse, 1992). The case study described here, evolved from the interview phase of this research project. The methodological framework for the interviews follows the principles of narrative inquiry and analysis outlined by Clandinin & Connelly (1994), Kvale (1983, 1996), and Mishler (1986).

For the present research phase, it was decided to repeat the original interview question but alter the way of examining the data for themes. The intention was to both deepen the effectiveness of our facilitating style in working with counsellor trainees and to extend the research method toward a more collaborative approach.

Participants

The first step was to offer an experience to students currently enrolled in the training program whereby they could reflect upon their own experience of becoming a counsellor. This took place after the first training semester when neither researcher was involved in direct evaluation of the students. Indications of interest were received from seven students. Four individual interviews and one group interview involving the three other students were arranged. The participant featured in this paper had been a teacher for several years before entering graduate school. She was the first to be interviewed.

Stage One

At the beginning of the interview, the procedures were explained to the student and she was given a piece of paper with the research question on it: "What is your experience of the process of becoming a counsellor?" She was invited to read and respond to this question. The student then spoke for forty-five minutes. Her response included descriptions and interpretations of both recent and distant past experiences, present awareness, and considerations of possibilities for the future. She also posed questions to herself.

At the end of her reflections she stated with strong emotion that this had been a very good opportunity to "put it all together" and noted that she had arrived at insights previously unrecognized. She declared that she felt invigorated with the realization that she had come through a and challenging time. She realized that her process of becom-

ing a counsellor had begun a long time ago and that she was, indeed, "making a lot of progress".

After the open monologue part of the interview was over, the researchers each asked several reflective and probing questions (for example, "can you say just a little more about your becoming a new person?") to elicit further details on certain aspects of the student's narrative. When the student felt complete in answering the series of circular questions, the interview ended. Total interview time was one hour.

Stage Two

When the transcript of the taped interview was completed, each researcher undertook the initial analysis steps separately. First, the transcript was read as a whole for general ideas and insights. The second reading focused on the identification of individual statements relating to counsellor development. These statements were then cut from the transcript and glued onto file cards. The first author identified fifty-four specific relevant statements, the second author identified fifty-three.

Stage Three

The two authors then spent a day together sorting through the thematic statements on the cards. For each card, individual themes and theme clusters were extracted from the statements. The result was thirty-six thematic headings—five major themes, or clusters, and thirty-one individual themes (see Table 1).

Table 1 Themes from First Step of Analysis

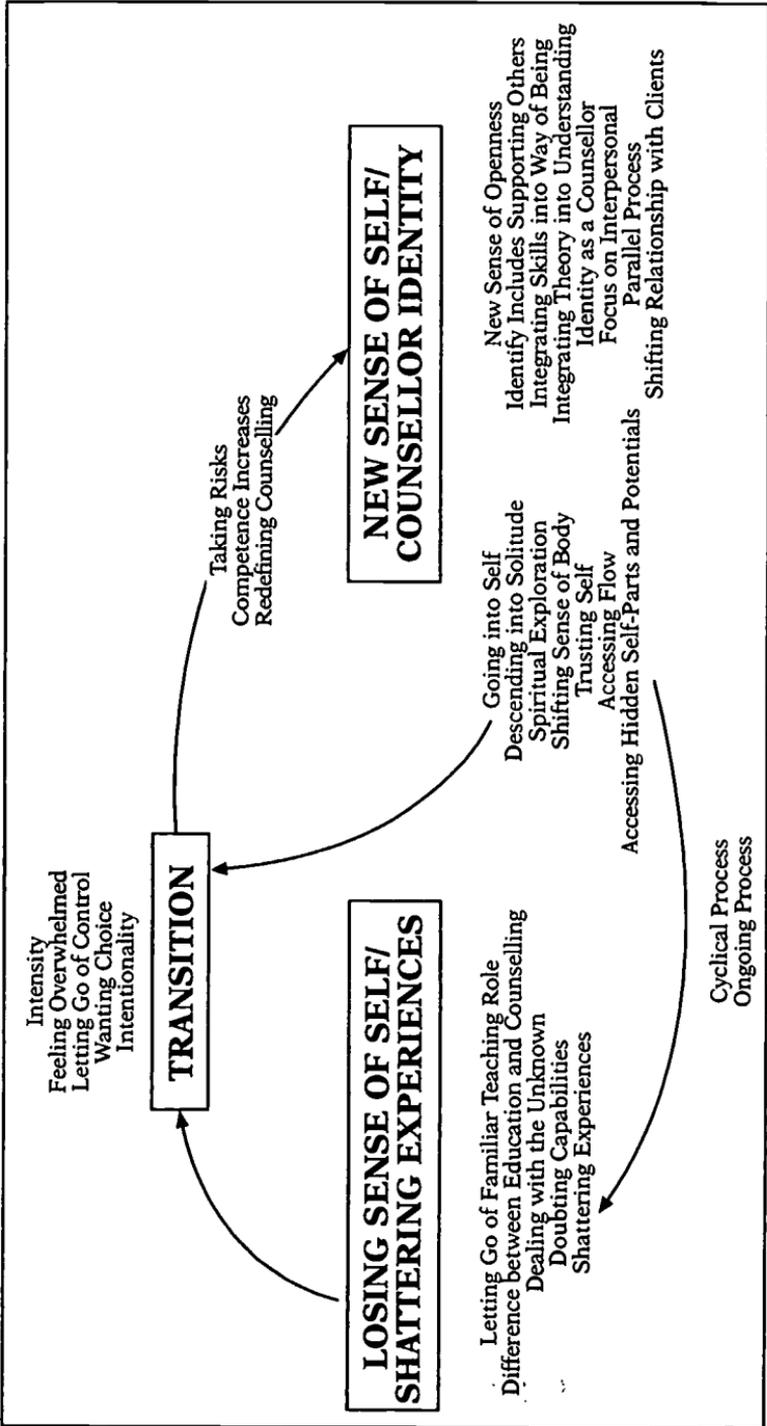
<i>Major Themes</i>
Counsellor Identity
Losing Sense of Self
New Sense of Self
Shattering Experiences
Transition

Individual Themes

- Accessing Flow
- Accessing Hidden Self-Parts and Potentials
- Competence Increases
- Cyclical Process
- Dealing with the Unknown
- Descending into Solitude
- Difference between Education and Counselling
- Doubting Capabilities
- Feeling Overwhelmed
- Focus on Interpersonal
- Going into Self
- Identity as a Counsellor
- Identity Includes Supporting Others
- Integrating Skills into Way of Being
- Integrating Theory into Understanding
- Intensity
- Intentionality
- Letting Go of Control
- Letting Go of Familiar Teaching Role
- New Sense of Openness
- Ongoing Process
- Parallel Process
- Redefining Counselling
- Shattering Experiences
- Shifting Relationship with Clients
- Shifting Sense of Body
- Spiritual Exploration
- Supporting Each Other
- Taking Risks
- Trusting Self
- Wanting Choice

Returning to the context of the original transcript, an attempt was made to place the individual themes in an order that reflected the whole process of becoming a counsellor as described by the student. It was realized immediately that the process was not linear, although it had occurred over a designated period of time. Several themes re-emerged and some process descriptors occurred repeatedly. This overlap posed a difficulty when attempting to diagram the student's experience. The agreed upon representation of the themes is depicted in Figure 1.

Figure 1 Researcher's Model of Counsellor Trainee's Experience



Stage Four

The student was given two copies of the thirty-six major and individual themes, in random order. She was asked: (a) whether these were accurate representations of her experience, (b) whether in viewing the whole or the parts she felt anything was missing, and (c) whether she had anything new to add. Finally, she was asked to arrange the themes in whatever arrangement she felt expressed her experience. In order not to influence her, the already constructed developmental model was not made available to her until after she had completed her own arrangement. A de-briefing session was held two days later. In this way, a direct validation of the thematic content depicted in our image could be obtained, as well as important information about how the student herself perceived the relationships of different themes.

Results

Our Model

As can be seen in Figure 1, our model of the student's developmental process involves a circular movement that includes "Losing Sense of Self", "Transition", and "New Sense of Self". Individual themes are associated with one of these major themes, or with the process itself. The student's experience included the shattering situations, the letting go of old roles and behaviours, and the focus on integrating new understandings that are so much a part of beginning counsellors' experiences. These themes have been acknowledged by all participants in our research as having significant impact on their development.

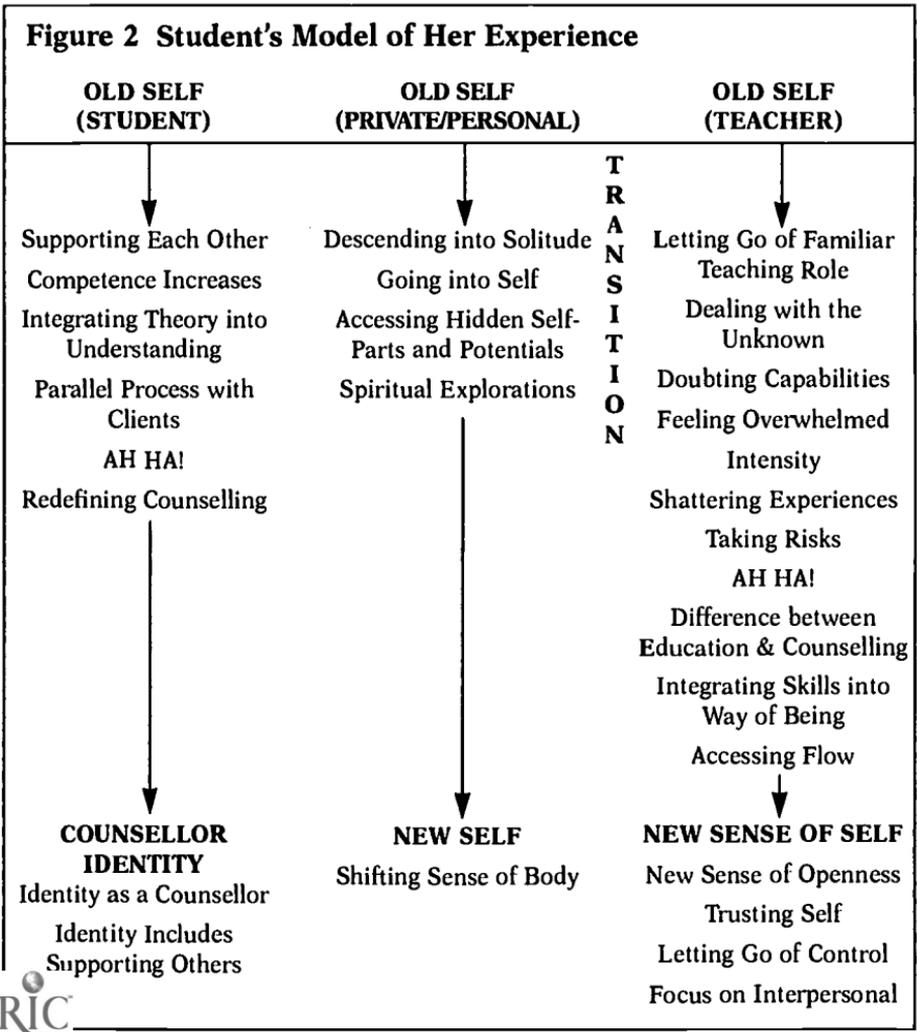
Similarities exist between our model and the one proposed by Sawatzky et al. (1994). Some overlap is evident between major themes in both studies: "Experiencing Dissonance", "Responding to Dissonance", and "Becoming Empowered". Both models also depict an ongoing circular process of counsellor development. However, descriptions provided by the student in this study go considerably beyond effectiveness and supervision to include personal as well as professional change throughout the entire process. This is an all-encompassing change, or what Bruss and Kopala (1993) have called a "transformation of identity at both a professional and personal level" (p. 685).

Student's Model

With respect to validation of the theme extraction, the student stated that the themes did capture her experience. She did query the label for one theme "intentionality", which she renamed "conscious intent" or "intentionality". She did not add any further themes. However, she added some descriptive and linking terms when arranging her themes on a large

sheet of paper (see Figure 2). She further stated that some overlap of themes was evident to her, as was the limitation of a two-dimensional representation of a process which was seen as continually circling back or spiraling. For example, "Conscious Intent", according to her depiction, occurs throughout the process.

The student's arrangement indicated a particular relationship among the themes which had not been evident in the interview. One striking difference was the representation of her private self as separate from her other roles as teacher-becoming-counsellor (old role) and student-becoming-counsellor (new role). When asked to elaborate on this distinction, she stated that she always processes and integrates new under-



standings within her private self first, before they become part of her more external roles.

Similar to our model, the student's depiction of her developmental process shows her movement from old self through transition to new self. However, she identified three separate yet connected "selves"—student, teacher, and private/personal self. All three were evolving toward new definitions or identities that incorporated "counsellor". She differentiated some themes as relating to either her teacher-becoming-counsellor role (e.g. "letting go of familiar teaching role", "doubting capabilities") or her student-becoming-counsellor role (e.g. "supporting each other", "integrating theory into understanding").

Some differences between the interpretations were evident. For example, we put the individual theme "Letting Go of Control" in the "Transition" theme cluster because the realization that control is counter-productive in counselling seemed to be a part of the student's transitional phase from old self to new self. The student saw this same individual theme as part of her more developed new counsellor self. This example can be used to illustrate the importance of checking interpretations and meanings. More than one interpretation can be appropriate, depending on the perspective or context of the interpreter.

The student described two instances of "ah ha" or insight when arranging the themes, that she identified as significant shifting points relating to her views of counselling and of herself as a counsellor (see ** in Figure 2). One of these insights involved the place of "risk-taking", which was seen as different for counselling (more necessary and constructive) than for teaching. The student stated that she began to actively seek out more challenging experiences once she felt she had attained a degree of self-efficacy and integration. The second insight involved a realization of parallel process and a shifting relationship with clients, leading to a redefinition of counselling. In this new understanding, the student saw her role as being more supporting, more open and more focused on interpersonal dynamics.

The student declared that the process of arranging themes had further assisted her in understanding her process of becoming a counsellor. She also stated that this was a good time for her to look at the process (her theme arrangement took place near the end of the second semester of the program). She recognized that she had needed another break in order to be able to integrate the various elements of her development, and identified this as a recurring pattern in her life. This outcome illustrates that, just as with clients, timing can be an important factor when helping students explore their professional development. Individual

Implications

The inclusion of the additional analysis step described in this paper has had a significant effect on both our own and the student's understanding of her process of becoming a counsellor. The method used with this one case will be repeated with the remaining six interview participants. The resulting representations will then be analyzed, searched for commonalities and unique features, and compared to our constructed model. The intended outcome will be a collection of models corresponding to the developmental sequences that the students have described, as well as a large pool of individual themes which are relevant to the process of becoming a counsellor. This data base will help in the refinement of a working theory of counsellor development that will inform both research and practice.

The circular developmental sequence of old self - transition - new self has been identified in our research and by Sawatzky et al (1994). This relatively simple model would be appropriate to introduce at the early stages of a counsellor training program. Students can then be encouraged to reflect on their individual experiences as they progress through the program. Models and themes of greater complexity could be introduced, explored, and developed over time.

The results of this research project will be shared with students as they enter the counsellor training program. The ongoing nature of development will be emphasized, different models and themes will be presented, and the students will be asked to monitor and reflect on their own growth process throughout the program. The findings reported here would suggest that the end of each semester may be a critical point for reflection, integration, and adjustment. Therefore, it is recommended that counsellor educators plan time for this developmental check within their programs. In this way, individual attention can be directed where it is needed. Reflection time could also serve as a constructive model for continuing professional self-evaluation and renewal, similar to Schon's concept of "the reflective practitioner" (1983). If this goal is realized in graduate school, it may be more likely to become part of professional life once training is over and counsellors are in the field.

Of equal importance is the discussion of shattering experiences, or barriers to the process of healthy professional development. Issues such as loss of familiar roles and supports, constant evaluation, peer pressure, and unrealistic expectations need to be acknowledged and explored. The process of becoming a counsellor includes difficult sessions, self-doubts, and occasional setbacks. A climate of open inquiry and discussion among students and faculty could have a normalizing effect and to dispel the myths and anxieties that may be present.

In our research to date, all students have emphasized both personal and professional elements in their growth. The participant in this study identified processing within her personal self as a critical factor in her development. It appears that personal and professional themes are experienced together at some times, more separately at other times. This dual focus could perhaps be represented in a double helix type model, with the two strands of personal and professional development intersecting at critical points. This is yet another possibility for further exploration.

The current research strategy has proven to be eminently workable. The initial interview, with free-flow response to the single phenomenological question, combined with the use of circular questioning at the end of the participant's monologue, has yielded rich data with minimal contamination from us. In addition, the collaborative method of thematic organization followed by reflection on the themes and on the entire process has been extremely valuable to ourselves as teachers, supervisors, and researchers.

These results have implications for the development of professional identity in other disciplines. There is considerable overlap among counselling, psychotherapy, teaching, social work, nursing, and other helping-oriented professions. They share the sequence of development (old self - transition - new self) that accompanies training experiences such as acquiring a professional language, practicing new behaviours, and adopting a code of ethics.

It has always been a challenge to identify and accommodate individual students' developmental paths within the somewhat limiting structure of graduate school training sequences. Our goal is to make the process of becoming a counsellor more conscious, so that students can make meaning of their experience and identify skills or issues that need attention, while still acknowledging their current developmental process as context. The procedure described in this paper can help us to reach this goal.

References

- Bruss, K. V. & Kopala, M. (1993). Graduate school training in psychology: Its impact upon the development of professional identity. *Psychotherapy, 30* (4), 685-691.
- Clandinin, D. J. & Connelly, F. M. (1994). Personal experience methods. In N. K. Denzin & Y. S. Lincoln (Eds.) *Handbook of qualitative research*. (pp. 413-427). Thousand Oaks, CA: Sage Publications.
- Friedman, D. & Kaslow, N. (1986). The development of professional identity in psychotherapists: Six stages in the supervision process. *Clinical Supervisor, 4* (1-2), 29-49.
- Hill, C. E., Charles, D. & Reed, K.G. (1981). A longitudinal analysis of changes in counseling skills during doctoral training in counseling psychology. *Journal of Counseling Psychology, 28*, 428-436.
- Hogan, R. (1964). Issues and approaches in supervision. *Psychotherapy: Theory, Research and Practice, 1*, 139-141.
- Kvale, S. (1983). The qualitative research interview—a phenomenological and hermeneutical mode of understanding. *Journal of Phenomenological Psychology, 17*, 171-189.
- Kvale, S. (1996). *InterViews. An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage Publications.
- Larson, L.M., Suzuki, L.A., Gillespie, K.N., Potenza, M.T., Bechtel, M.A., & Toulouse, A.L. (1992). Development and validation of the Counseling Self-Estimate Inventory. *Journal of Counseling Psychology, 39*, 105-120.
- Loganbill, C., Hardy, E. & Delworth, U. (1982). Supervision: A conceptual model. *The Counseling Psychologist, 10*, 3-42.
- Marshall, A. & Andersen, T. (1995). Themes of Development for beginning counsellor trainees in an off-campus graduate program. *Connections 95*. Victoria, B.C.: University of Victoria Press, pp. 92-100.
- Mishler, E. G. (1986). *Research interviewing. Context and narrative*. Cambridge, MA: Harvard University Press.
- Sawatzky, D.D., Jevne, R.F. & Clark, G.T. (1994). Becoming empowered: A study of counsellor development. *Canadian Journal of Counselling, 28*, 177-192.
- Schon, D. A. (1983). *The reflective practitioner*. New York: Basic Books.
- Skovholt, T.M. & Ronnestad, M.H. (1992). Themes in therapist and counsellor development. *Journal of Counseling and Development, 70*, 505-515.
- Stoltenberg, C. (1981). Approaching supervision from a developmental perspective: The counselor complexity model. *Journal of Counseling Psychology, 28*, 59-65.
- Stoltenberg, C. D. & Delworth, U. (1987). *Supervising counselors and therapists: A developmental approach*. San Francisco, CA: Jossey-Bass.

Gender Equity in Physical Education Workshop for Teachers: The Process of Change

Sandra Gibbons and Geraldine Van Gyn

This paper describes and chronicles the process used to develop the Gender Equity in Physical Education Workshop for Teachers. The intent is to prepare the workshop participants as an agent of change in developing gender equitable physical education programs in their own schools/districts.

Purpose

The purpose of this paper is to describe the development of a workshop designed to assist teachers to cope with the process of educational change, while providing a specific focus on the various issues and challenges associated with establishing and maintaining a gender equitable environment in secondary school physical education. This Gender Equity in Physical Education Workshop for Teachers (Gibbons & Van Gyn, 1994) was designed for inservice and is based on the assumption that if the environment in secondary school physical education is to become more gender equitable, change is best initiated and implemented by the teachers in this environment. The intent was to prepare the workshop participant as an agent of change in developing and implementing strategies for improving and enhancing gender equitable practices in school physical education programs.

Background of the Workshop

In order to encourage discussion of a variety of gender equity issues in physical education, the Gender Equity Schools Initiative, a sub-committee of the Canadian Association for Health, Physical Education, Recreation & Dance (CAHPERD) sponsored a series of meetings at the 1992 National Conference in Winnipeg, Manitoba. A variety of participants from different aspects of physical education, including (among others) physical education teachers, administrators, and university professors were invited to discuss aspects of a position paper on gender equity in physical education. The conversations during these meetings were both spirited and diverse. Issues ranging from low enrollment of

policies in universities were discussed. Examples of specific frustrations expressed by physical education teachers included low enrollment, lack of motivation of their female students in physical education, lack of female role models, stereotypic expectations of students, and use of sexist language by colleagues. Based on these discussions, the teachers identified a need for practical strategies to address the gender inequities that they struggled with on a daily basis in their physical education classes. The summary of these discussions also emphasized that if systemic change is to occur, it is dependent on each individual playing her or his part in the process. Development of this workshop was our attempt to contribute to systemic change. The following steps were utilized as part of this development:

- Step I: Formulation of a Conceptual Framework for the Workshop
- Step II: Initial Design of the Workshop
- Step III: Collaborative Pilot Test
- Step IV: Field-based Pilot Test
- Step V: Initial Workshop Evaluation

Step I: Formulation of Conceptual Framework for the Workshop.

The major goal in the design of the workshop model focused on providing for both active involvement of participants during the workshop and meaningful long term commitment following the workshop. Therefore, the conceptual framework of the workshop was grounded in several major tenets of educational change. These tenets emphasized the notion that in order to make real change in educational practice, an individual must be able to (a) identify the desired end result of a change, (b) possess the skills and support required to make the change, and (c) be in a position of influence to make the change. These notions were embedded throughout both the content and structure of the workshop.

Step II: Initial Design of the Workshop.

The workshop was divided into the following sections:

- Part A: Introduction to the Gender Equity in Physical Education Workshop
- Part B: Identification of Gender Equitable Physical Education
- Part C: Introduction to Educational Change
- Part D: Gender Equity Action Plans
- E: Gender Equity Action Plans Follow-up and Future Action.

The first four parts were part of a one-day workshop, with Part E scheduled for three to four months following this one-day session.

The first tenet (identification of the desired end result of change) was used to design the first two sections of the workshop. The focus was on the idea that if an individual is to make effective change, it is necessary that he or she has a clear image of the desired end result. Therefore, it was important to provide a clear explanation of the intent of the workshop and a definition of gender equity. Gender equity was defined as a "state in which all individuals have equal access to the opportunities of their choice. This state guarantees that differences in preferences, as well as the factors that lead to those preferences, are acknowledged and respected" (Gibbons & Van Gyn, 1994, p.A1). Inherent in this definition is the goal to create an environment in which no one is forced into a predetermined role or status because of gender.

Following the introduction, several participant-centered activities were planned to help teachers identify the attributes of a gender equitable physical education program. These activities were framed around the question, "If we had gender equitable physical education programs, what would the graduates of these programs be like?" Participants were asked to describe (a) a graduate of such a program, (b) what it would be like to work in these programs, and (c) what the curriculum would be like. It was the intent of these activities to help participants clarify a picture of the desired outcomes. Another intent was to emphasize that gender equitable physical education programs are not alien and impossible. In fact, participants should begin to realize that many of the attributes they may have described as part of the activities are very much within reach and within their own particular sphere of influence. Thus, this intent also ties directly to the other two tenets of educational change (skills and support; position of influence).

Following an identification of a possible outcome, a description of the present status of gender equity in physical education was included. The purpose of this activity was to identify and summarize present inequities within the context of the aim of the provincial physical education curriculum. The major aim of the physical education program in B.C. schools is to "enable all learners to enhance their quality of life through active living" (B.C. Ministry of Education, 1995, p.1). However, research results indicate that we are having considerably less success achieving this aim with female students. Research results support the suggestion that young females are considerably less prepared physically, socially, and psychologically than young males for participation in physical activity (Gibbons & Van Gyn, 1994, p.B6). In essence, this part of the inservice activity was designed to provide the participants with

an indication of the difference between the end result identified in the preceding activity and the present status of gender equity. It provides a partial answer to the question, "How close are we to the desired end result?"

Part C of the workshop was introduced using the question, "Why is it so difficult to move from where we are to where we want to be?" This question was designed to bring closure to the inequities discussion, and to introduce the variety of actions associated with educational change. Four variables associated with the second (skills and support) and third (position of influence) tenets of educational change were used to organize the activities in the remaining sections of the workshop. These four variables included proximity of change, levels of change, skills of change, and sequence of change. These variables are frequently associated with successful educational change initiatives. Likelihood of the occurrence of real change in educational practice increases if the assumptions of each variable are met.

Proximity of change is based on the assumption that those closest to the desired object of change and in a position of influence will have the greatest chance of implementing real change. Within the context of this workshop, the desired object of change is the physical education environment, and the physical education teacher is in a position of influence within this environment. During this discussion the intent was to emphasize the important role of the teacher in the process of educational change. Teachers are well-situated to contribute to significant change in the physical education experience of their students.

The term levels of change was used to describe the complex patterns of interaction within the physical education environment. These levels included the individual level (interaction between individuals), program level (content and structure of physical education courses etc.), and system level (school board, province etc.). An emphasis was placed on the fact that most incidents of gender inequity in the physical education environment usually involve several levels of interaction. Thus, attempts to address these inequities must include strategies directed at the different levels. The assumption associated with this variable states that all levels of interaction involved with the desired object of change (physical education environment) must be addressed if real change is to occur. For example, a change in program options coupled with individual changes in use of language will be more effective at achieving real change than either one of these changes implemented in isolation.

The third variable skills of change is based on the assumption that in order to be effective, the change agent must possess the following: knowledge, understanding of the system in which change is to take

place, organizational skills, and communication skills. Of the preceding list, communication skills were the major focus of this workshop. A variety of role-play activities were designed to allow participants to practice and reflect upon their communication skills. The following is an example of the type of activity included in this section:

Two ninth grade girls are hassling a third girl in the locker room after Physical Education class. The abuse is focused on the third girl's participation in a community ice hockey program and her general energetic play in class. There is pushing, shoving and comments including "butch" and "homo" directed at the third girl.

You are the teacher of this class and witness this behaviour. Design an opening line that will address the use of language and the other actions of the two girls, and begin to initiate positive change. (Gibbons & Van Gyn, 1994, p.C7)

The fourth variable sequence of change was utilized to help participants design action plans to address particular gender equity challenges within their own physical education programs. This variable was based on the assumption that effective educational change requires a systematic approach to the change process. This systematic approach focused on a step-by-step process that included identification a challenge and desired end result; description of proposed action(s); and assignment of specific duties and time lines for the individuals involved in the implementation of the action(s). Case studies were designed and presented to allow all participants to become familiar with the steps in the sequence of change process. Following work on the case studies, participants utilized the same steps in the design of gender equity initiatives for their own schools. Participants were strongly encouraged to design plans for which they felt they had the time, skills, and commitment to accomplish. This planning activity concluded the formal one-day portion of the workshop.

The next phase involved three to four months in which participants implemented their action plans. Following this period of time, Part E of the workshop was designed to allow the teachers to report on the progress of their action plans. During this reporting session, participants were asked to review their action plans and provide a summary of both the barriers they encountered and the breakthroughs they made. This opportunity was provided to encourage participants to celebrate successes, share frustrations, and reflect on their action plans.

Step III: Collaborative Pilot Test

Step III in the developmental process focused on the implementation of a collaborative pilot test of both the structure and content of the work-
model described in Step II. A group of twenty secondary physical

education teachers from four B.C. school districts were selected as workshop participants. These teachers were selected on the basis of recommendations from district physical education consultants. Factors used in the selection of the teachers included willingness to tackle challenging problems, evidence of professional involvement, and interest in gender equity issues. The purpose of this type of pilot test was to garner feedback on various aspects of the workshop including structure, appropriateness and effectiveness of activities, and sequence and duration of activities. These teachers participated in all aspects of the initial workshop model including design and implementation of gender equity action plans.

In general, feedback from the participants in the collaborative pilot test provided support for the overall structure of the workshop and the participant-centered types of activities used within the workshop. In particular, the "action-oriented" nature of the workshop received strong support. The major structural suggestion for change from the participants included an increase in the time allocation for the design of individual action plans accompanied by a decrease in use of the hypothetical case study activities. Content suggestions focused primarily on the need for clarification of instructions and refinement of the communication skills activities included in Part C (Introduction) of the workshop. These suggestions were incorporated into the workshop design prior to the field-based pilot tests.

Step IV: Field-based Pilot Tests

Once the workshop model was refined to include suggestions from the collaborative pilot test, several field-based pilot tests of the workshop were conducted. These tests included delivery of the workshop at two district in service days and to the physical education staff of an individual secondary school. Coincidentally, these districts had approached us to provide workshops prior to becoming aware of the workshop we were designing. None of these participants were involved in the collaborative pilot test. In each pilot test, the overall structure and content was maintained during delivery of the workshop. Minor adjustments were made in the workshops to accommodate differences in time allocation and group size. All three groups completed the one-day session with the follow-up meeting.

Step V: Initial Evaluation of the Workshop Model

Evaluations by workshop participants in both Step III and IV of the developmental process indicated support for the workshop model. on the workshop evaluation form asked participants to rate the

effectiveness of various workshop activities on a five-point scale: 1= not at all effective to 5=very effective. Mean item scores from all pilot workshops ranged from 3.75 through to 5.0. The evaluation forms also included space for participants to provide written comments for each item. In addition to these formal evaluations by participants, the following outcomes were considered to be indicators of success. First, all participants in both steps of pilot testing designed an action plan during the one-day session. These plans were well-formulated and appeared to be designed in a spirit of serious professional commitment. An even stronger indicator of success was the high completion rate of these action plans. Eighty-five per cent of the action plans from the field-based pilot workshops were completed with at least 50% of these participants continuing on with further action plans beyond the scope of the workshop. Considering that one of our original goals was to provide for long term commitment beyond immediate participation in the workshop, we found this high rate of completion to be especially heartening encouragement for the workshop model. Most importantly, it appears that positive change has occurred for students in some physical education classes. It was assumed that teachers would come to the workshop from a variety of situations ranging from well-developed gender equitable programs in need of minor refinement to programs with major equity problems, and bringing with them different levels of awareness regarding gender equity issues. Whereas the action plans developed by workshop participants reflected these differences and resulted in varying types of change, each was judged to be significant within their respective contexts in moving toward gender equitable physical education.

Follow-up Activities

Since completion of the process described in this paper several events have occurred to allow for further development and refinement of the workshop model. First, the workshop model was adopted by CAHPERD as its model for training gender equity workshop leaders. This has resulted in the completion of a national workshop in Ottawa for training two representatives from each province and territory to deliver the workshop. Subsequent regional leader training workshops were held in Edmonton, Toronto, and Halifax. Since participation in these training sessions, leaders have delivered a variety of workshops in their home provinces and territories.

Finally, a recent meeting of the leaders trained in the national workshop was held in Ottawa. Results from this meeting have provided us with information to continue to refine what appears to be an effective work-
odel and make it ever more effective.

References

- British Columbia Ministry of Education (1995). *Physical Education 8-10 Integrated Resource Package*. Victoria, B.C.: Author.
- Gibbons, S.L. & Van Gyn, G.H. (1994). *Gender Equity in Physical Education Workshop: Manual for Workshop Leaders*. Gloucester, ON: Canadian Association for Health, Physical Education, Recreation and Dance.

Educators as Action Researchers: Discourse and Reflections

Lily Dyson, Leola Gibson, and Colin Roberts

To demonstrate the focus of action research on the practice and personal concerns of teachers, two teachers reflect on their experiences with an action research group. Implications are drawn for university researchers.

Introduction

Action research as a form of collective self-reflective inquiry is increasingly employed by educators in a variety of important school issues, including professional and curriculum development (Kemmis & McTaggart, 1988). Action research can be collaborative, the impetus being shared concerns and the goal, improvement in practice. Action research focuses on the process with content (Noffke, 1995) and would lead to the improvement of practice and the understanding of the practice (Kemmis & McTaggart, 1988). However, if action research is to help improve schools and practice, the experiences of practitioners and the context in which they work (Noffke, 1995) must be made public.

When teachers engage in action research, they have issues that they consider important (Noffke, 1995) or worthy of researching. Unique knowledge is generated by teachers in their practice-based inquires. Furthermore, since practical issues of concern to teachers are site-specific and understanding of the issues are person-specific, action research can be highly personal. Action research can encourage teachers to address issues of their concern in a community of teachers. Research by teachers is unlikely to become a significant part of their life unless they can see it as improving their own school-centered circumstances which caused them to get involved in the action research (Noffke, 1995). One possible purpose of action research is for teachers to come to an understanding of their educational situation so that they can improve instructional practice (Noffke, 1995). If research by teachers is self-developmental (Noffke, 1995), it is likely to lead to improvement of instructional practice. Modification of practice takes place as a result of being involved in action research.

An 'Educators as Researchers' Group

Over the last three years several teachers in the Greater Victoria School District have become involved in an action research group. The research group, called Educators as Researchers Group, is organized and directed by the School Services Coordinators. The teachers are encouraged and guided towards becoming reflective researchers. Joining the group means making a commitment to reading, sharing, discussing, and analyzing present teaching practice.

Initially, teachers may be somewhat hesitant to begin a process. Perhaps they feel unskilled when it is suggested they are becoming researchers, but with relaxed discussion it becomes clear they have a wealth of knowledge gained through daily practice. With experience, teachers have become astute observers. The desire to maintain and improve teaching style and techniques has led to self-evaluation and analysis, which the teachers often do without realization. Bringing people together in order to react to problems can eventually cause growth and change. When deliberation, discussion, and consideration among peers becomes supportive, it is rewarding. Analysis can become the result of trying to answer a question or solve a problem. Analysis involves critical thinking and as analysis develops, it is likely that more people will become involved. A spreading, mushrooming effect has indeed been created. The resolution of a problem is dependent upon people and time.

Practical Concerns and Research Questions

For members of the Educators as Researchers Group, participation has taken on a variety of levels. Some use the setting to refine their questions; others have reached the stage of involving full staffs, parents, and students. Extra commitment has allowed some members to present workshops and prepare resource materials that will help other schools. These actions show that members have come to recognize the value of their efforts. The questions raised by members of the group have revolved around different topics, situations, and goals. Some of the questions are listed in Figure 1.

Figure 1 Sample Questions from the Educators as Researchers Group

- How can Reading Recovery strategies be adapted to small group and whole class instruction and which strategies suit which particular learning needs?

What are the Reading Recovery strategies I can use as a classroom

teacher and how can I organize my classroom so I can work with those students?

- How can I develop the link between oral language and the writing process, and use this link to prevent the fossilization of incorrect structures?
- How can I find ways to teach and evaluate the students with low skills within the "regular" classroom?
- How do students' learning styles affect their ability to use listening as a learning skill?
- Has your involvement in the Educator as Researcher program brought about any particular changes in your teaching or the performance of any of your particular duties? How do you balance the dual roles of teacher and researcher? Are there any factors that either positively or negatively impact upon your ability to conduct your research?
- How can we, as teachers, empower students to take ownership and responsibility for creating a safe and secure school environment?
- What is needed to facilitate the transition from a nurturing elementary environment to a secondary environment?

On-going Projects

Various research projects have emerged from the Educators as Researchers Group. For example, in the Transition Group, a major question raised was: What is needed to facilitate the transition of students from a nurturing elementary environment to a secondary environment? The group interested in this question has grown to twenty-five and includes teachers, administrators, and counsellors from elementary and junior secondary schools. The goals for this group include the following:

1. To get grade eight (secondary school) teachers to connect with grade seven (elementary school) teachers.
2. To review the issues through discussion and clarification.
3. To separate the issues - those that can be addressed now and those that require longer time for planning.
4. To identify actions that can be taken at the school level.
5. To draft a model of possible actions that could be used to address the issues around the transition from grade seven to grade eight. What can classroom teachers realistically do to make the transition smooth?

parent input as expressed in feelings, questions, concerns; student input; and curriculum.

A small group, the Quadra School Group, has initiated the involvement of the whole school. This group concerned itself with the question: How can we empower students to take ownership and responsibility for creating a safe and secure school environment? The goals specified by the group include the following:

1. To discuss, brainstorm, and generate ideas,
2. To bring about positive changes in the school,
3. To identify playground problem areas - to attempt to identify or spot problems before they happen,
4. To encourage everyone to work together,
5. To develop good feelings for all,
6. To make better use of the library, computer stations, and reading and game centres,
7. To encourage students to take ownership and to empower them through the student council,
8. To embark on the beautification of the school. To encourage district and community involvement and support for such matters as: painting of hop-scotch and checker boards; obtaining picnic tables, plants in window boxes, banners and murals; and improvements to adventure playground equipment.

Experiences of an Educator as Researcher – Reflections and Research of A New Member

I first became aware of the Greater Victoria School District's Educator as Researcher project in September, 1995. The support offered by this project took the form of up to three full days of release time and the opportunity to collaborate with colleagues who might share similar interests. I was reluctant to commit myself in pursuit of this option in the beginning, considering the possible difficulty of conducting research while fulfilling my role within my school. The ability to conduct a research project without the assistance commonly available to university graduate students pursuing further studies was also questioned. These dilemmas became part of the basis for a research project.

My concerns were consistent with what are reported in the literature. Foster, and Nixon (1978) argued that the role of the teacher is too complex to include a research component. Wong (1993) pursued this issue in questioning the feasibility of finding the time to conduct classroom

ing. Wong stated that the goal of research is to know and understand, whereas the goal of teaching is "to do the right thing" (p. 7). Wong also purported that research activity involved observing and reflecting, whereas teaching demanded making choices and taking action. When caught between pursuing these contrasting ends, Wong concluded that these possible differences can become "paralyzing" (p. 9).

A research project was initiated to gain some insight into how other teachers engaged in action research balance their dual roles of researcher and teacher and to what extent their involvement in the District's Educator as Researcher project affects and has affected their teaching practices. To reach this goal, a semi-structured interview format was employed. This format was intended to provide some direction in the conversation between the participants and the researcher, yet still provide those interviewed the opportunity to relate what they perceive to be most significant. All interviews were audio-taped and are being transcribed verbatim.

Preliminary examination of data from interviews with six teachers shows that some of the issues identified in the literature have also proved an issue for the research participants in this project. According to teachers, time constraints have been a particularly significant obstacle to conducting effective classroom research. The Greater Victoria School District, through its support of the Educator as Researcher program, has helped to alleviate this problem to some extent by providing release time for teachers to meet to discuss their research projects. This release time has supplied teachers with time to formulate plans and share ideas. However, the difficulty of maintaining the classroom program and managing the research project simultaneously still exists. Teachers have attempted to find creative solutions to this problem. Some have considered adapting research methods to overcome this barrier, while others have collaborated with colleagues to "create" time in their regular schedules.

It is also evident that all participants interviewed to date believe that their involvement in the Educators as Researchers project has had a positive impact on their teaching practice and their professional development. Through further investigation it is hoped to acquire a clearer picture of the research participants' perceptions of the advantages and disadvantages of engaging in action research.

Summation

Action research allows teachers to collectively look at challenges in their own classrooms, develop research questions, and to solve related ns. Opportunities exist for dialoguing and sharing of education-

al issues and concerns. This research process make explicit concerns and interests derived from discourse. These processes and concerns are instructional for educational researchers. Professional growth of teachers in their confidence in conducting research and in their teaching practice further speaks of the value of action research.

Action research can involve collaboration among the teachers (Noffke, 1995). To inspire continuous research by teachers, action research must be initiated by and maintained by teachers, rather than by outsiders. However, outsiders like university instructors and researchers can play a role in teachers' action research.

Possible roles for university personnel can include supporting action research and being available for consultation. Reflective teaching and action research need to be incorporated in the training of pre-service teachers. Appropriate and practical research skills for classrooms can be introduced to teachers. Moreover, the practical questions presently raised by the teachers can provide challenges for university researchers in further expanding or empirically testing. Finally, it is hoped that the thoughts and experiences shared in this paper will foster an interest and collaboration between members of the Faculty of Education and the teachers presently working on a variety of action research projects in school districts. These teachers are enthusiastic and ready to open the door for future sharing. Such a link could be beneficial to both groups.

References

- Foster, L., & Nixon, M. (1978). Teacher as researcher: The problem reconsidered. *Canadian Journal of Education* 3(1), 75-88.
- Kemmis, D., & McTaggart, R. (eds.) (1982). *The action research planner*. Victoria, Australia: Deakin University press
- Noffke, S., & Stevenson, R. B. (eds.) (1995). *Educational action research: Becoming practically critical*. New York: Teachers College.
- Wong, E. D. (1993). *Challenges confronting the researcher teacher: Conflicts of purpose and conduct*. Paper presented at the Annual Meeting of the American Educational Research Association, Atlanta, G.A.

Authors' Note

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Reflexivity and the Researcher's Role

Elizabeth M. Banister

The term "researcher as instrument" is used by anthropologists to refer to the central role that researchers have in identifying, interpreting, and analyzing the social phenomenon under study. The goal of this research has been to add to the theoretical understanding of women's experience of physical change at midlife, and its influence on their self-perceptions.

Introduction

"Of all the human sciences and studies anthropology is most deeply rooted in the social and subjective experience of the inquirer. Everything is brought to the test of self, everything observed is learned ultimately 'on his [or her] pulses' " (Turner, 1986, p. 33). When I embarked on my research project, I realized that my fieldwork would be central to my understanding of midlife women's changing bodies. But I was not prepared for the ambivalence, contradiction, and discomfort that I experienced during this research project. In this paper I invite the reader to accompany me on a short journey while I attempt to explain how the researcher's presence in the research field can influence the interpretation and representation of ethnographic meaning.

The purpose of my ethnographic study was to explore and describe midlife women's perceptions of their changing bodies. My decision to study women at midlife was guided by several considerations. First, when I thought about midlife women's changing bodies as a topic, I had the impression that the literature on midlife women's changing bodies addressed common myths and misconceptions about this topic, rather than exploring the women's actual experience of this transition. It seemed as if what women knew was derived from cultural myths and misconceptions—stories of "the change", from mothers, grandmothers, aunts; stories of silence, mystery. Second, I discovered that available literature on women at midlife was sparse, particularly writing related to women's perceptions of their changing bodies. I couldn't help but wonder if this scarcity indicated that researchers were tacitly participating in the devaluing of aging women's experience, evident in the culture at large. Third, as a woman at midlife, I was personally interested in the topic. My discussions with friends, colleagues, and other

health professionals concerning midlife experiences convinced me that this would be a fruitful avenue of research for myself, for other midlife women, for the academic community, and for society in general. I wanted to explore midlife women's experiences of the physical changes in their bodies from a different angle, from that of a researcher. As with any ethnographic study, this one took place at the dynamic intersection of self, other, and text. It was clear that the dialectical nature of this project could prove interesting, that my subjectivity made me, as Richardson (1995) suggests, a speaking subject, whose stor[y] must be heard, whose power comes from within (p. 194).

An ethnography was chosen as the research approach in order to seek an emic perspective of midlife women's perceptions of their physical changes. The emic perspective, or the insider's perception of reality, is at the core of most ethnographic research (Agar, 1986; Fetterman, 1989). An ethnography is a qualitative research method, rooted in anthropology, that attempts to capture individuals' perceptions of meanings and events within specific contexts (Agar, 1986; Spradley, 1979). The ethnographic research approach is primarily an inductive method that is used to generate new questions and theories that are grounded in empirical data (Glaser & Strauss, 1967). Such theories and questions are derived from participants' thick rich descriptions* (Geertz, 1973), or descriptions that represent the central elements of individuals' meanings of their experiences (Denzin, 1989b). An ethnographic interpretation of such descriptions was used to understand midlife women's perceptions of physical change in their historical and cultural contexts (Rizzo, Corsaro, & Bates, 1992).

The research participants were 11 midlife women, ages 40-55, who had identified themselves as experiencing physical change, and who were willing to describe their experiences. My intent was to present a multi-voiced text that represented the women's interpretations of their changing bodies from as broad a perspective as possible. My academic agenda was to help with the discovery of diverse forms of women's experience, and in doing this to give voice to midlife women's experience. One of the diverse forms of women's experience which I observed had, to date, been devalued in the culture at large.

The Researcher's Role

The term researcher as instrument is used by anthropologists to refer to the central role that researchers have in identifying, interpreting, and analyzing the social phenomena under study. Participant observation is viewed as "a mode of being-in-the-world" (Atkinson & Hammersley, 249). Social researchers are all participant observers because

they cannot escape being part of the social world under study. This role requires that field-workers not only participate in the social world but also reflect upon the products of that participation (Hammersley & Atkinson, 1983). This reflexive nature of the "anthropology of experience" (Turner, 1986) involves an interface between the researcher's inner dialogue and dialogue with others (Bruner, 1986). For those who study experience, then, self-reflection can offer understandings of the other (Geertz, 1988; Kleinman & Copp, 1993). To go a step further, this dialectical nature of social research can be seen in part as a process of self-discovery (Bruner, 1986; Ricoeur, 1977). In other words, "both the person researched as well as the research-person are thus being changed ... they change each other" (von Eckartsberg, 1971, p. 75).

A double consciousness of experience (Abrahams, 1986), of participation, and of reporting the action-is a central condition for the ethnographer. Indeed, all ethnography may be seen as an interaction between two double experiences – the ethnographer's experience of self and participant in the field; and the participant's experience of self and of the researcher (Bruner, 1986). The analysis of these four components of experience is at the core of anthropology (Bruner, 1986).

According to Turner (1974), it can be said that this double consciousness of experience is one of liminality, of being in a state of "betwixt and between". What this implies is an increased tension and emotionality (Jackson, 1990; Kleinman & Copp, 1993); a state of ambiguity between the observer and the observed (Eastland, 1993). To paraphrase Eastland (1993), there is a liminal characteristic between emotional detachment and self-reflection (Geertz, 1988; Kleinman & Copp, 1993), between intellectualizing and bodily experience (Conquergood, 1991), and between fully entering into the experience and observing it (Adler & Adler, 1990). It is grappling with this type of ambiguity, where self and other intersect, where a researcher is neither completely in his or her experience, nor in the experience of the other, that questions of representation and interpretation arise. One of the starting points is the negotiation of this limin between self and other, through the "collaborative nature of the ethnographic experience" (Tyler, as cited in Atkinson & Hammersley, 1994, p. 256). It is here that the researcher attempts to define a relationship between self and other, to engage and simultaneously disengage (Eastland, 1993). This is the "magic of ethnography" (Eastland, 1993, p. 124); to capture and reflect upon this tension between the observer and the observed.

original emphasis), where I began to make sense of the women's narratives by recording my reactions into my fieldnotes. I allowed my pas-
 sions, my emotions, and my body to be in the field to become immersed
 in the phenomenon of inquiry about midlife women's perceptions of

their changing bodies. I experienced bodily and intellectually. It was through this mind/body, reflexive/sensitive presence, that I was able to find some common ground with experiences described by the participants (Jackson, as cited in Conquergood, 1991). The women's stories of children leaving home resonated with my own recent experience of the "the empty nest." It was critical in my fieldwork that I remain open to my vulnerabilities in a humble, honest, self-reflexive fashion and acknowledge the "reciprocal role-playing between knower and known" (Conquergood, 1991, p. 182). It was the paradoxical or liminal position of doing ethnography, of my embodied interaction with participants while remaining the observer, that grounded my knowledge of the phenomenon.

Reflecting upon this "autobiographical presence" (Clandinin & Connelly, 1994) helped determine my influence upon the interpretation and representation of the women's experiences. Therefore, before my initial entry into the field it was critical that I record some of my assumptions, feelings, biases, and anticipated outcomes to use as a baseline of comparison with the women's stories. It was through this written reflection that my understanding of the women's experiences evolved. For example, Denizen's (1992) *Symbolic Interactionism and Cultural Studies*, set the stage for my assumption that midlife women would have a form of "gendered experience", or existential crisis involving their changing bodies, since a person's identity is grounded in or based on cultural messages and personal beliefs about one's gender; one could predict that when a person's gender roles are challenged (as occurs for women in their middle years, with relation to their changing bodies) that person will suffer an existential crisis. Using this expectation of existential crisis as one type of lens could influence my interpretation of the endless range of experiences being lived and told by the women. Through the intersection of their tellings and my reflections, I was mapping out uncharted territory in my understanding of the phenomenon of inquiry. The fieldwork challenged many of my assumptions about women at midlife, such as those that relate to societal devaluation of aging women.

By reflecting upon my experience of the interviews, questions emerged about my role, about the participants' roles, and about the fieldwork. I questioned who I was and what I believed I was doing in the interview setting (Kleinman & Copp). What is important is that my active written record (Connelly & Clandinin, 1990) of my analytic thoughts and feelings concerning the fieldwork contributed to the cycle of data collection and analysis. This written record helped move me into the empirical and became part of the analytical constructs as suggested by

Situating Myself in the Field

During the past several weeks I have experienced restless nights, unsettling dreams, and discomfort in my body. Is this a rite de passage, an embodied state required for moving from the field experience to the field of writing-to the field of representation and interpretation-a kind of initiation? Even now, as I sit at my computer and write this part of the text, I struggle to find words that represent my physical, situated self in the field. Issues of emotionality vs neutrality keep surfacing. Unlike the traditional neutral observer, my research position involves my bodily experience; my body offers "felt insights" (Trinh, as cited in Conquergood, 1991, p. 183) into the research participants' lives.

If I center this piece of writing only on the logistics of how I used the field text to record my reactions and thoughts about the field experience, rather than on what such reactions are about, then my emotional distance may distance the audience from learning how my feelings informed my final analysis. Instead, I want to convey to the reader that it was through my self-reflections and subsequent analytical notes, through this living and telling, that I began to uncover the cultural and social layers of meaning. Through these reflections on self I was free to use my feelings to inform the analysis, as suggested by Kleinman and Copp (1994). Furthermore, to borrow from Richardson (1995), it is through the very act of accounting for my personal investment in the project that this project may be legitimized. This involves informing the reader of my political and personal investments in the research. In this spirit, I turn to a brief illustration of what it has meant to study women's experiences.

As I launched into this project I attempted to clarify my value position concerning the phenomenon of inquiry (Denzin, 1989b). I wrote in my dissertation proposal: "Ussher (1989) suggested that societal values that represent youthful images of slim, young women help shape aging women's self definition. This may predispose one to assume that women's experience of aging will be traumatic". These idealizations of youthful, female beauty may reflect the ideological stance that one would find in the recent upsurge of "pop" literature about women at midlife, of cultural influences such as the media and medicine, of how these may shape midlife women's ways of knowing. Such an explanation seems incomplete. There is more to tell, more that emerged from the women's own stories. It was through my own subjective experience of the field, through my own tellings, through my self-reflections, that possibilities were opened for considering alternate understandings of midlife women's reality.

ERIC begin to present a slice of my field experience, to retell my own

story, I acknowledge my contradictory feelings. How much do I tell? The phrase, "We are what we study" keeps surfacing. Besides the researcher identity, I entered the field with other social identities and am aware that, in part, my identity as researcher is shaped by the personal and ideological position I assumed in the research (Kleinman & Copp, 1993). The relations between my researcher role and my role as a woman at midlife; the relations between neutral observer and full participant in the women's experience: each involves complex questions of representation, of interpretation, and of the written text (Clandinin & Connelly, 1994).

After spending much of my time collecting data through taped conversations and through writing field notes, I often saw aspects of my own experience in the participants. In my field text I recorded reactions to casual conversation, magazine and newspaper articles, pop literature, and films. More and more questions emerged, questions of sexuality, menopause, hormone replacement therapy. I felt ambivalence about my changing body. I was bothered by a contradiction: I wanted to value myself on the basis of personal qualities and achievements; yet I found myself being concerned about my changing looks. Like many of the participants, I resented social norms that reflect societal values of youth, fertility, and beauty. When I sought medical answers to questions about physical and emotional changes, the responses I received from some members of the medical community were no different than those devaluing messages received by many of the participants. I was bothered by my angry feelings. But I was struck with how the 11 research participants sought out their own answers through alternative means - acupuncture, health remedies, counselling - to name a few. I grew uncomfortable with notations made in my field notes about some of the women's self-care tips. Questions of possibly recording such data for my own personal benefit kept haunting me. And there were times when I viewed stories of self-care with out-right skepticism. Were these self-care tellings simply a way to solve the cultural problem (Spradley, 1979) of being devalued from the outside? My cynicism felt uncomfortable.

As the research - and time - progressed, my emotional involvement in the project moved into other areas of my life, as forewarned by Kleinman and Copp (1993) in their work, *Emotions in the Field*. As I listened to the women's stories, parts of my experience kept surfacing. As was the case for Danforth (1982), in his description of participating in death rituals in rural Greece, there were times when I was acutely aware of "simultaneous ... otherness and oneness" (p. 7):

When I entered Mary's home for the final interview, I sensed a stillness. In an informal greeting, I asked her how she had been keeping since

we last spoke. In her quiet manner, Mary told me her daughter had recently died. It was an accidental death. She then told me of community and family support, cultural rituals-acceptance-comfort in her tragic loss. I thought of my own daughter - the same age as Mary's daughter. Momentarily, I experienced a heaviness throughout my entire body-my chest felt tight, restricted. My throat ached. Tears welled up in my eyes. Then ... a special, shared space—difficult to describe-no past, no future. Only a quiet, still, reverent moment ... Mary and I sat looking at one another.

This passage is a verbatim transcript taken from my field notes. It illustrates my private processing-my thoughts, emotions, physical sensations, memory, and language-that relate to complex sociocultural meanings; meanings of death, loss, and parenting. Most critical to such introspection was, as Ellis (1995) put it, the transformation of my assumptions of self, other, and society. At the intersection of self and other, I learned to appreciate the complexity of midlife women's experience. Questions arose about the meaning of human suffering in women's lives, of spiritual transformation, of inner strength.

It was through talking and writing about my field experiences that I began to make sense of them. Eventually, my understanding of my ambivalent feelings towards the women's experience of their changing bodies helped me appreciate their felt sense of incongruency. Perhaps this ambivalence led me to redefine and understand women's experience in ways that other health and health-related professionals could not. Issues of liminality kept surfacing; but in part, my sense-making of my questions involved this threshold state, of being situated "between the structural past and the structural future as anticipated by the society's normative control of biological development" (Turner, 1986, p. 41).

Conclusion

This brief 'confessional tale' (Van Maanen, 1988) illustrates part of my time in the field and of how the liminality of my researcher's role informed my understanding of the women's lives. Through the experience of the relationship between myself and the participants, I was able to capture and discover aspects of cultural and social meaning in the women's lives. My intent in this writing was to inform the reader of how individuals' stories come to be interpreted and partially understood (Clifford, 1986) in ethnographic research.

References

- Abrahams, R. D. (1986). Ordinary and extraordinary experience. In V. W. Turner & E. M. Bruner (Eds.), *The anthropology of experience* (pp. 45-72). Urbana, IL: University of Illinois Press.
- Adler, P. & Adler, P. (1990). The past and future of ethnography. *Journal of Contemporary Ethnography*, 16(1), 4-24.
- Agar, M. H. (1986). *Speaking of ethnography*. Beverly Hills, CA: Sage.
- Atkinson, P. & Hammersley, M. (1994). Ethnography and participant observation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 248-261). Thousand Oaks, CA: Sage.
- Bartky, S. L. (1990). *Femininity and domination*. New York: Routledge.
- Bogdewic, S. P. (1992). Participant observation. In B. F. Crabtree & W. L. Miller (Eds.), *Doing qualitative research* (pp. 45-63). Newbury Park, CA: Sage.
- Bruner, E. M. (1986). Experience and its expressions. In V. W. Turner & E. M. Bruner (Eds.), *Anthropology of experience* (pp. 3-32). Urbana, IL: University of Illinois Press.
- Clandinin, D. J. & Connelly, F.M. (1994). Personal experience methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 413-427). Thousand Oaks, CA: Sage.
- Clifford, J. (1986). Introduction: Partial truths. In J. Clifford & G. E. Marcus (Eds.), *Writing culture: The poetics and politics of ethnography* (pp. 1-26). Los Angeles: University of California Press.
- Connelly, F. M. & Clandinin, D. J. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 19(5), 2-14.
- Conquergood, D. (1991). Rethinking ethnography: Towards a critical cultural politics. *Communication Monographs*, 58, 179-194
- Danforth, L. M. (1982). *The death rituals of rural Greece*. Princeton, NJ: Princeton University Press.
- Denzin, N. K. (1989b). *The research act* (3rd ed.). Englewood Cliffs, N. J.: Prentice Hall.
- Denzin, N. K. (1992). *Symbolic interactionism and cultural studies: The politics of interpretation*. Cambridge, MA: Blackwell.
- Denzin, N. K. (1994). The art and politics of interpretation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 500-515). Thousand Oaks, CA: Sage.
- Eastland, L. S. (1993). The dialectical nature of ethnography: Liminality, reflexivity, and understanding. In S. L. Herndon & G. L. Kreps (Eds.), *Qualitative research: Application in organizational research* (pp. 121-138). Cresskill, NJ: Hampton Press.
- ERIC (1991). Sociological introspection and emotional experience. *Symbolic Interaction*, 14 (1), 23-50.
- ERIC (1995). The other side of the fence: Seeing black and white in a

- small southern town. *Qualitative Inquiry*, 1 (2), 147-167.
- Fetterman, D. M. (1989). *Ethnography*. Newbury Park, CA: Sage.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Geertz, C. (1988). *Works and lives: The anthropologist as author*. Stanford: Stanford University Press.
- Glaser, B. G. & Strauss, A. L. (1967). *The discovery of grounded theory*. New York: Aldine De Gruyter.
- Haug, F. (1987). *Female sexualization: a collective work of memory*. London: Verso.
- Jackson, J. E. (1990). "Deja entendu" The liminal qualities of anthropological fieldnotes. *Journal of Contemporary Ethnography*, 19 (1), 8-43.
- Kleinman, S. & Copp, M. A. (1993). *Emotions and fieldwork*. Newbury Park, CA: Sage.
- Richardson, L. (1995). Writing-stories: Co-authoring "the sea monster," a writing-story. *Qualitative Inquiry*, 1 (2), 189-203.
- Ricoeur, P. (1977). The model of the text: Meaningful action considered as text. In F. Dallmayr & T. McCarthy (Eds.), *Understanding and social inquiry* (pp. 316-334). Notre Dame: University of Notre Dame Press.
- Rizzo, T. A., Corsaro, W. A. & Bates, J. E. (1992). Ethnographic methods and interpretive analysis: Expanding the methodological options of psychologists. *Developmental Review*, 12, 101-123.
- Rossan, S. (1987). Self and identity. In R. Honess & K. Yardley (Eds.), *Identity and its development in adulthood*. London: Routledge & Kegan Paul.
- Rossi, A. S. (1980). Life-span theories and women's lives. *Signs: Journal of Women and Culture and Society*, 6 (1), 4-32.
- Spradley, J. P. (1979). *The Ethnographic Interview*. New York: Holt, Rinehart & Wilson.
- Turner, V. (1974). *Dramas, fields, & metaphors: Symbolic action in human society*. Ithaca: Cornell University Press.
- Turner, V. W. (1986). Dewey, Dilthey, and drama: An essay in the anthropology of experience. In V. W. Turner & E. M. Bruner (Eds.), *The anthropology of experience* (pp. 33-44). Urbana, IL: University of Chicago Press.
- Ussher, J. M. (1989). *The psychology of the female body*. Routledge: London.
- Van Maanen, J. (1988). *Tales of the field*. Chicago: The University of Chicago Press.

“The Anger in Our Miss Maple”: Narrative Exploration of Difficulty in Teaching

Leah Fowler

This paper explores the nature and difficulty of teaching through narrative. The theoretical underpinnings arise out of narrative and autobiographical theory, hermeneutics, and feminist pedagogy.

“Matthew.”

“Here.”

“Mary.”

“Present, Miss Maple.”

“Mark.”

“Present.”

“Luke?”

“Yuh ... here.”

“Miriam?”

“Uh-huh.”

“Miriam, what was that?”

“Here, Mzzzzzz. Maple.”

“That’s better. John. John?”

“ ... “

“Ruth?”

“Here. ... Ms. Maple.”

“John! You ARE here. I called your name; are you with us or against us? It is common courtesy to speak when spoken to, people.”

“How come ya always call us “people” when you only mean one of us,” sneered Luke, who was the brightest in this class of English 17 and who Miss Maple knew wanted to get into medicine but also knew he would be lucky if he could pass a nursing attendant course.

“Luke, I wasn’t speaking to you. John, answer me.”

“What? Okay, okay, so I’m here, ya can see that. Don’t get yer ... uh, self

in a twist.”

“Peter?”

“Yes.”

“Esther.”

“Yeah, whatever.”

“Present, Ms. Maple would be nice. Timothy?”

“Present, Ms. Maple, sir.”

“David, Sarah, Joshua ... you are all here too. All right, class, I want to begin a new section of study. We just finished the novel *Hunter in the Dark* and ... “

“That guy was a faggot.” John took a long “drag” on his slurpee and looked over the edge of the huge waxed-cardboard rim at Miss Maple.

“John, that’ll be enough. Every time you see a male character deal with hard human problems and show a little tenderness of feeling in friendship, it doesn’t mean he is a homosexual. Although there are plenty of wonderful people who do happen to prefer their own sex. It is time you opened your horizons a bit, my boy. How do you think you would react if you were told that you were dying?”

“I ain’t dying. I use safe sex, eh?” and he enjoyed the raucous, if nervous, laughter of the class.

“Good one John. Hey! How come we always read this candy crap in school? It’s so ‘little-house-on-the-prairie-Walton’s-Brady-bunch-homey-shit.’ I mean take a look around ... life ain’t like that ... it just ain’t.” Mary snapped her gum and blew John a kiss.

“Well, we have finished the book now anyway, and we are going to start a new study unit today, as I said, and I think you will like what I have planned. Usually I teach poetry using the textbook but this time ...”

Matthew wadded a blank piece of loose-leaf paper and ‘made a basket’ into the garbage tin at the front of the room. “Two points, d’jou guys see that? Poetry ... Like it? Poetry? NOT! Nah, I don’t think so, teach.”

“Let me finish, peop ... class. What I would like you to do is each choose a group or musician whom you like and pick three or four of their songs to bring to class. You write out the lyrics, the words to the song, and I’ll make copies for us to study. We will use the poetry that is being listened to and written now.”

“That’s ‘rad’. Maryanne Faithful ... I am bringing Maryanne Faithful, a little ‘snatch’ of music ... “ Peter chuckled lewdly.

Corrosion of Conformity’s better, “ Esther whined.

"We have twelve people left in the class. I want four songs from each of you with no overlap ... "

"Where's the sign-up sheet, I'm doing Jelly Biafra everybody, so butt out." Mark got up and seized a piece of foolscap from the teacher's desk. He wrote his name at the top in capital letters and then slouched over to John. "Your 'quick-pick-double-dip', man, winner takes all."

Miss Maple strode over to John and reached for the paper, but he whisked it neatly out of her grasp. She glared at him and backed up to the front of the room. "It is fitting that you should have the 'fool's cap', John. Keep it then."

Ruth tilted backward on the two back legs of her chair and leered, "You have just been insulted, Studley."

"Shut it, bitch."

All right; that will be ENOUGH! Spelling test. Get some paper. There will be words from the novel we just finished. It's worth fifty marks. Your report cards are in a week. If you cannot conduct yourselves like grade ten human beings, then we will conduct it like an elementary class until you can begin to behave like adults."

"I don't have any paper."

"Then borrow some, Esther."

"I don't have a pen."

"Then cut yourself and use blood. First word: leukemia. Second word: melancholia. Third word: disciple. Fourth word: labour."

"Could d'ja slow down, jeez."

"No. I can speed up: anachronism - tedious - neanderthal - irritable - stupidity - prejudice - dyslexic, ... "

"Miss Maple ... Miss Maple. We never took these words."

"Yes, well. You are taking them now; you will need to know what they mean in your little lives, that's for sure."

"Hey, Miss Maple. Hey ... what is this ... you on the rag?"

"Fifty marks: violence, bile, venom, slaughter, volatile ... " and so she dictated and so they wrote or tried to in a frightened and eerie new silence until the bell rang for a ten-minute break until next class.

• • • • •

The morning bell signaling five minutes to the start of the next, the third of the morning, sounded through the halls of Isis Banes

Composite High School but our Miss Maple would be late again. Since September first, eight months ago, at 10:38 every weekday morning, our Miss Maple had been vomiting her diligently prepared breakfast. Then she'd brush her teeth, gargle, compose herself, and march back to class with new confidence.

She had not been vomiting from early pregnancy as Linda Knight did before the first class, or from alcoholism as Dylis Framley did before second class. As nearly as she could tell, our Miss Maple had been vomiting from rage—that kind that erupts from lack of control and lack of hope.

Until this morning, it had not really occurred to her that she could change things and had even resigned herself to the fact that matinal purging was simply to be one of her personal aspects in the job of teaching English to a new species of adolescent Cretins.

This morning, as she lifted the lid on the toilet to be sick, she read scribbled in permanent-black-felt pen "Fuk You, Mis Mapel." The entire contents of her stomach projected themselves unbidden into the porcelain bowl. Those words scrawled in learning-disabled graffiti unleashed something in her that had been building over twenty years of marking illiterate papers, unpaid lesson planning, cafeteria supervision, evening P.T.A. meetings, and interminable English 17 classes half-full of students on the ten-year plan for high school.

So when our Miss Maple returned to the third class of English 17 on that Wednesday morning after the bathroom episode, she was a changed woman, and now well-armed, albeit just a little late to class. She had "lesson-planned" this next class over the recess, but it was planned as none ever had been planned before in her teaching career.

They were crowded out in the hall, around her locked classroom door and began the harassment the minute she came into view. "Yo! Teach! You're a little late for class. Thirty-five push-ups and go to the office for a late slip and you're suspended for the day and don't you ever come back to this class late again, young lady ... Huh? Huh? Isn't that what you'd say, teach? Huh? Am I right? Take your own, teach."

Miss Maple smiled and shifted the bundle in her arm and slowly unlocked the door. The disciple-dozen of her "in loco parentis" charges, for the second of their double period with her today, ambled and scurried and shoved and slouched their way toward disabled desks. Miss Maple watched their faces carefully, one by one, one arm on the bundle and not moving away from her desk.

"What's doin', teach?"

 a few efficient brush strokes, Miss Maple erased the neatly printed

agenda and the entire set of notes from the board, leaving a chalky green open wall space below artists' renditions of the classical authors. "Nothin', pupes." She liked that. It made her think of the metamorphosis pupa stage of caterpillars unfinished in their development, only to become moths. She'd be the first in line to light the candle for them, because clearly, cursing the darkness hadn't worked. She smiled again, and closed the classroom door and locked it with her key.

The twelve students shifted nervously and improved their posture as Miss Maple shoved her desk up against the only door to the room and placed the large metal garbage can on top of the desk, right in the middle.

"Oh, I get it, " Joshua said, "We done so terrible on our assignments you're gonna throw 'em in the garbage, right?"

"NOT! Wrong as usual, Joshua."

The lad was hurt because he was sure Miss Maple had liked him and he was confused by her strange tones and words. He glanced out the window and was temporarily comforted by the warm yellow glow of the early morning spring sunshine.

Miss Maple, still smiling serenely, dumped all the papers, file folders, memo, letters, journals, and handouts into the huge gunmetal-gray can.

"We are going to have 'spring' today, a new beginning and a little poetic mythology lesson, which you will always remember."

For the first time during the whole school year, that April morning she had the attention of every student in the class. She opened the side drawer of the desk and emptied the contents of three butane lighter tins (confiscated over the course of the years from her students with pyromaniacal tendencies) over the papers, into the garbage can. She wrote the single word "Phoenix" on the front board, began to hum melodiously, sat on the desk with her left arm around the garbage pail, and lit a match to the paper nest.

Epilogue

What you just read is a fiction story called "The Anger in our Miss Maple". Of course I prefer and have written stories where the human spirit soars in the classroom, but profound difficulty exists there too. We are rarely trained to deal with difficulty in the teaching profession. We often view it as a sign of incompetence. We try to forget the bad days. We report our best classes and are largely silent about the rest.

This conference has as its organizing theme "connections". In our profession, we are most likely to disconnect when we experience great difficulty. We tend to disconnect when we feel unable; when we struggle without seeming to make progress; when we abandon our work; when we come face-to-face with not knowing what is called for or knowing enough; when we might feel as though we are too emotional; when we get too close to the lines between public and private for our own comfort. But to withdraw in those moments is to lose some of our most important possibilities for connection. Questions about difficulty occur again and again. At specific, individual levels we ask: What is really going on here? What is the difficulty here? What is called for? How can my teaching be reconstructed? At general, collective levels we ask: What must happen to individual teachers, to classrooms, to curricula, to relationships in the whole educational system so that teaching becomes bearable, possible, and ultimately meaningful?

One place to open these questions about the sub textual, inner spaces of teaching is through narrative, where people tell stories out of memory and imagination until important truths emerge. Writing these narratives becomes the ethical, grounded, therapeutic intervention which helps us to re-vision our story so that we can write about ourselves beyond the limitations of what we are, to include what we might be able to become.

Many answers to educational difficulties (some based on research) have been offered, planned, implemented, and assessed, in efforts to transmit, transact, and transform all aspects curricula, including students and teachers. But there is an underside to teaching where the question of what it means to teach resides. That question taps a problematic site of moral, epistemological, and psychological struggle, that has remained virtually hidden.

Not to open such hidden questions in teaching is to risk considerable loss of understanding. Failing to confront and make sense of anger, fear, pain can undermine the possibility of reconstituting the teaching 'self'. Not acknowledging that any curriculum by definition will always be inefficient can mean finally being unable to make teaching bearable. To work and live generatively within those impossible tensions

becomes the work of relational education where everything depends upon noticing the life stories of ourselves in relation to the life stories of others.

"The Anger in Our Miss Maple", although fiction by genre, does 'connect' for many of us, even if in uncomfortable ways. Most of us would agree that the strategies to which Miss Maple resorts are not acceptable nor appropriate, but her story is intended to provoke and to invite discussion about one kind of difficulty—the anger in experienced teachers — and to consider what the issues are here and what might be done.



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